SHIP: USS BOONE(FFG-28) SSP: 582-05

I N D E X

ADDENDUM NO 2

ITEM NO	TITLE
531-31-002	Seachest Blow Out Connection Valve and Pipe Nozzle; replace

DATED: 27 JANUARY 2005

SHIP:	USS BOONE (FFG-28)	ITEM NO:	531-31-002
COAR:	16-582	PCN:	EA01-0050
		CMP:	NONE
		PLANNER:	KANAPAUX

1. SCOPE:

1.1 Title: Seachest Blow Out Connection Valve and Pipe Nozzle; replace

1.2 Location of Work:

1.2.1 Auxiliary Machinery Room Number 3 (5-292-0-E)

1.3 Identification:

1.3.1 Quantity (One EA), Stop Check Valve, 1-1/2 Inch, Flanged, Bronze, 100 PSI, Mfr. Milwaukee Valve Co. Inc. or Equal, Seachest Blow Out Connection, Valve Number (5-296-2), For Distilling Plant Feed Pumps Numbers One and Two, Part Number V-016 On 2.4 and 2.5, APL Number 882032966

1.3.2 Quantity (One EA), Seachest Blow Out Connection Pipe Nozzle, 1-1/2 Inch IPS, For Distilling Unit Seachest Blow Out Connection Valve listed in 1.3.1, Part Number F-018, in Detail 4F-2E, on 2.6

1.3.3 Quantity (One EA), Waster Sleeve, 1-1/2 Inch IPS, Carbon Steel, For Distilling Unit Seachest Blow Out Connection Valve Listed in 1.3.1, Part Number F-033 on 2.4 and 2.5

2. REFERENCES:

2.1 Standard Items

2.2 T9074-AS-GIB-010/271, Requirements For Nondestructive Testing Methods

2.3 S9086-RK-STM-010/CH-505, Chapter 505, Piping Systems

2.4 531-5351539 Rev N, Distilling Plant & GTRB Water Wash System Piping Fr 250-328

2.5 531-5351539PL Rev K, Distilling Plant & GTRB Water Wash System Piping (Parts List)

2.6 163-5351044 Rev E, Suction Sea Chests

2.7 MIL-STD-22, Welded Joint Design

2.8 505-5351838 Rev H, Sheets 1A -1C and 18A -18C, Machinery & Piping Construction Standards

3. REQUIREMENTS:

(I)(G) "PRELIMINARY INSPECTION/ULTRASONIC TEST"

3.1 Accomplish ultrasonic tests on existing seachest nozzle listed in 1.3.2 and 6 inches of surrounding seachest shell plate, in accordance with 2.2 and 2.3, using 2.4 through 2.6 for guidance.

3.1.1 Total of 12 readings shall be taken on the seachest nozzle, using Paragraph 505-1.4.4.3.1 of 2.3 for guidance.

3.1.2 Total of 12 readings shall be taken on the seachest shell plating adjacent to the nozzle, at locations equal distant apart.

3.1.3 Map locations where UT readings are taken and submit to the SUPERVISOR for future reference.

3.1.4 Minimum thickness of existing nozzles and shell plate shall not be reduced by more than 40 percent of their original thickness.

3.1.5 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.1 to the SUPERVISOR.

3.2 Remove existing and install new seachest blow out piping nozzle, waster piece, and stop check valve listed in 1.3, in accordance with 2.4 through 2.8.

3.2.1 Seachest blow out connection nozzle shall not be replaced until authorized by the SUPERVISOR. Nozzle shall not be replaced unless the minimum wall thickness exceeds the minimum requirements identified in 3.1. Wall thickness shall not be reduced by more than 40 percent of its original thickness.

3.2.1.1 Joint design for welding new nozzles shall be P-66 of 2.7.

3.2.2 Remove existing and install new 12 Inch X 12 inch insert in seachest plating, with 3 inch radius corners, identified as below minimum thickness in 3.1, when directed by the SUPERVISOR. Install 1-1/2 inch wide X 1/4 inch thick backing bars inside of the seachest when installing new plate. Seal weld all around.

3.2.2.1 New plating material shall be 20.4 pound ASTM A-36 carbon steel.

3.2.2.2 Joint design for welding in new seachest plating shall be B1V.5 of 2.7.

3.2.3 Accomplish the requirements of 009-12 of 2.1, including Table 2, Column A, Lines One through 7.

(I)(G) "MAGNETIC PARTICLE INSPECTION"

3.2.3.1 Accomplish nondestructive testing in accordance with Line 11.

3.2.4 Restore piping flange mating surfaces exposed by disassembly of piping system. Repair by removing high spots, burrs, abrasions, and foreign matter, where removal can be accomplished by hand tools. Take precautions to maintain phonographic finish on flanges that have it.

3.2.5 Accomplish the requirements of 009-12 of 2.1, including Table One, Column A, Lines One through 10.

(I)(G) "MAGNETIC PARTICLE INSPECTION"

3.2.5.1 Accomplish nondestructive testing in accordance with Line 14.

3.2.6 Remove existing and install new salt water piping joint gaskets and fasteners. Gaskets shall conform to UNAFLEX, Type 96 or 87. Type 94 or Type 95, AMS-G-6855 Grade I, Class 80, or MIL-G-22050, Grade 2 or 3, are to be used for suction sea chest steam out connections. Fasteners shall conform to MIL-DTL-1222, Type I, Grade 400 or 405, Class A or B, QQ-N-281, nickel-copper alloy.

3.2.7 Accomplish the requirements of 009-71 of 2.1 for new and disturbed piping.

3.2.7.1 Test pressure shall be 75 PSIG, using clean, fresh water, when the hydrostatic test option is selected.

3.2.8 Accomplish the requirements of 009-32 of 2.1, including Table One, Line(s) 22, 23, 24, 25, 26, or 27, for new and disturbed areas of each seachest.

3.3 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Deviation from specification required in accordance with response to Design Service Request Number 05-320-9972.

4.2 Cofferdam shall be required to accomplish this Work Item.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

SHIP: USS BOONE (FFG-28)

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

I N D E X

ADDENDUM NO 3

SHIP:	USS BOONE (FFG-28)	ITEM NO:	123-11-006
COAR:	16-582	PCN:	EB14-0012
LWT FILE NO:	123-13	CMP:	NONE
REVISED:	16 JAN 2005	PLANNER:	STEINDLER MATHISEN

1. SCOPE:

1.1 Title: Contaminated Oil Tank; repair

1.2 Location of Work:

1.2.1 5-132-0-F 6,510 Gallons Capacity

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 T9074-AS-GIB-010/271, Requirements for nondestructive Testing Methods

2.3 111-5351018 Rev G, Shell Pltg, Fr and Long Fr 93 - 153

2.4 130-5351027 Rev K, Deck Pltfm and Fr - Bhd and Stan 93 - 153

2.5 MIL-STD-1689, Fabrication, Welding, and Inspection of Ships Structure

3. REQUIREMENTS:

3.1 Accomplish a visual inspection of the tank listed in 1.2 for existing structural integrity, deterioration, pitting, cracks, and areas of damage or distortion.

3.1.1 Accomplish an ultrasonic inspection in 10 locations of suspect area to determine the extent of defects in accordance with Paragraph 5 of 2.2.

3.1.2 Submit one legible copy, in hard copy or electronic media, of a report listing type, extent, and location of defects to the SUPERVISOR.

3.2 Accomplish repairs to the tank listed in 1.2, using 2.3 through 2.5 for guidance.

3.2.1 Provide 3 mandays of labor and 500 dollars of material for removal and reinstallation of interferences required to accomplish work in each

tank, when directed by the SUPERVISOR. Total cost greater or less than above manday and dollar amounts when authorized will be the subject of an equitable adjustment.

3.2.1.1 Submit one legible copy, in hard copy or electronic media, of a weekly report to document labor and material expenditures to the SUPERVISOR.

3.2.2 Remove existing and install new 3 square feet of 10.2-pound plate and 3 square feet of 15.3-pound plate in way of damaged or deteriorated plating in the tank as designated by the SUPERVISOR.

3.2.3 Accomplish the requirements of 009-12 of 2.1, including Table 2, Column A, Lines One through 7.

3.3 Provide 5 mandays of labor and 300 dollars of material to accomplish additional repairs to the tank not previously identified in this Work Item, when directed by the SUPERVISOR. Total cost greater or less than above manday and dollar amounts when authorized will be the subject of an equitable adjustment.

3.3.1 Submit one legible copy, in hard copy or electronic media, of a weekly report to document labor and material expenditures to the SUPERVISOR.

3.4 Accomplish the requirements of 009-25 of 2.1 for air test of the tank listed in 1.2. Test pressure shall be 2 PSIG. Hold test pressure for a minimum of ten minutes. Allowable drop in pressure: None.

3.5 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 There is known communication between this tank and fuel oil tank 5-116-1-F.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

SHIP:	USS BOONE (FFG-28)	ITEM NO:	631-11-003
COAR:	90-582	PCN:	EM03-Y143
		CMP:	NONE
		PLANNER:	ROBERTS MATHISEN

1. SCOPE:

1.1 Title: AMR 2 Bilge; preserve (OPTION ITEM)

1.2 Location of Work:

1.2.1 Auxiliary Machinery Room Number 2 (5-212-0-E)

1.2.1.1 Diesel Enclosure (5-226-1-E)

1.2.1.2 Diesel Enclosure (5-226-2-E)

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 111-5351020 Rev J, Shl Pltg, Fr & Long Fr 210 1/2 - 271

2.3 633-5351722 Rev N, Zinc Protectors

2.4 633-5351722PL Rev G, Zinc Protectors Parts List

2.5 PM 390-177, SERMC, QA Inspection Forms

2.6 622-5351707 Rev P, Floor Plates Grtg and Handrails Aux Mchry Rm No 2

2.7 622-5351707PL Rev N, Floor Plates Grtg and Handrails Aux Mchry Rm No 2 Parts List

3. REQUIREMENTS:

3.1 Remove the deck plates and gratings in each location listed in 1.2. Tag for location and hold for reinstallation.

3.1.1 Prior to removal, inspect each deck plate and grating for structural integrity, deterioration, pitting, cracks, and areas of damage or distortion.

3.1.1.1 Submit one legible copy, in hard copy or electronic media, of a report listing type, extent, and location of defects to the SUPERVISOR.

3.1.2 Accomplish a visual inspection of the bilge areas no later than the first 20 percent of the availability for structural integrity, deterioration, pitting, cracks, and areas of damage or distortion.

3.1.2.1 Accomplish an Ultrasonic Inspection in 50 locations as directed by the SUPERVISOR.

3.1.2.2 Submit one legible copy, in hard copy or electronic media, of a report listing type, extent, and location of defects, including UT results, to the SUPERVISOR.

3.1.3 Accomplish clad welding of 10 square feet of shell plate and support structure in location listed in 1.2, using 2.2 for guidance, as designated by the SUPERVISOR.

3.1.3.1 Areas greater than 45 per cent thickness reduction and covering more than 2 square feet for each incident shall be replaced.

3.1.3.2 Accomplish the requiements of 009-12 of 2.1, including Table 2, Column A and B, Lines One through 7.

3.2 Remove flange spray shields from the piping system flanges. Inspect, tag for location, and retain flange shields suitable for reuse.

3.3 Remove existing and install new zinc anodes in accordance with 2.3 and 2.4. The areas covered by zincs shall receive a complete preservation system prior to installing the zincs. Do not paint the zincs.

3.4 Observe the following safety precautions:

3.4.1 The spaces being cleaned and preserved shall have no machinery or drains operating. The contractor and the SUPERVISOR shall discuss and agree on any machinery remaining energized, including any additional monitoring or other safety precautions that may be required.

3.4.2 No smoking, welding, burning or other source of ignition such as hot metal surfaces shall be allowed in the machinery spaces during work specified herein.

3.4.3 Provide adequate lighting and ventilation during work specified herein, using non-sparking blowers, explosion-proof lights and electrical connections. Paint will not dry correctly if fumes are allowed to accumulate above the paint.

3.5 Install covers, blanks, and plugs to ensure that no damage will result

to the ship, ship's machinery, electrical and piping systems, and equipment during work specified herein.

3.5.1 Mask-off and provide protective covering on valve stems, labels, flow and identification plates, and markings.

3.6 Accomplish the requirements of 009-32 of 2.1, including Table 3, Line 11, 12, 13, or 14, for bilge surfaces in each location listed in 1.2.

3.6.1 Provide recorded QA Data required by paragraph 3.3.10 of 009-32 on 2.5.

3.6.1.1 2.5 shall also serve as the Test and Inspection Plan and Inspection Record required by 009-04 of 2.1.

3.6.2 Use contrasting colors for each coat and stripe coat.

3.6.3 Final coat shall be bilge red.

3.6.4 Longitudinal and transverse structural members can be used as boundaries to define the work sections. Each section should be fully hand/power tool cleaned and primed before work is started on the next section.

3.6.5 Accomplish the requirements of 009-32 of 2.1, including Table 5, Line One, for the coating system on piping and valves. Do not power tool clean piping systems (solvent and hand tool clean only).

3.6.6 Accomplish the requirements of 009-32 of 2.1, including Table 4, Line 43, Column A, for the deck gratings and upper side of the deck plates removed in 3.1.

3.6.7 Disturbed areas above level of bilge cleaning and preservation shall be prepared and preserved to match existing. Establish as original and paint markings on piping systems and equipment disturbed during cleaning and preservation operations specified herein.

3.7 Remove protective covering installed in 3.5.

3.8 Reinstall flange shields retained in 3.2.

3.8.1 Install 80 new silicone coated aluminized cloth spray shields on flammable liquid piping system flanges below the lower level of floor plates and gratings in accordance with ASTM-F-1138.

3.9 Reinstall the deck plates and gratings removed in 3.1. Straighten 10 deck plates and 2 gratings prior to reinstallation. Reweld and drill 100 fastener holes where deteriorated and unusable.

3.9.1 Remove existing and install new 50 linear feet of deck support

structure, as designated by the SUPERVISOR.

3.9.2 Install new fasteners (screws and nutserts) in accordance with 2.6 and 2.7.

3.9.3 Accomplish the requirements of 009-12 of 2.1, including Table 2, Column A, Lines One through 7.

3.10 Accomplish final cleaning as follows:

(V)(G) "CLEAN AND DRY BILGES FOR TOUCH-UP"

3.10.1 Clean bilge areas in each space listed in 1.2. Rinse with fresh water, pump down, and dispose of liquids and debris to obtain a clean, dry condition of the individual bilges.

3.10.2 Remove and dispose of oily liquids, sludge, and debris in accordance with federal, state, and local laws, codes, ordinances, and regulations.

3.10.2.1 Accomplish two chemical analyses as designated by the SUPERVISOR.

3.10.2.2 Submit one legible copy, in hard copy or electronic media, of the chemical analyses to the SUPERVISOR.

3.11 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Bilges are defined as that area of a compartment from the keel to the top of the existing bilge red line. Included are vertical keel, shell plating and attached structural members, bulkheads, tank top plating and manhole covers, bilge wells and sumps, foundations, floor plates/gratings and support structure, piping and associated support structure, valves, and normally painted equipment therein.

4.2 To support Lean Painting Pilot Project, work in this item shall be worked in accordance with FY 06 Standard Item 009-32 Change X (Draft).

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

SHIP: USS BOONE (FFG-28)

1. None.

5.3 KITTED MATERIAL:

1. None.

SHIP:	USS BOONE (FFG-28)	ITEM NO:	651-11-001
COAR:	16-582	PCN:	EXSA-0472
LWT FILE NO:	651-80	CMP:	NONE
REVISED:	15 SEP 2004	PLANNER:	CURTIS MAYLE ROBERTS

1. SCOPE:

1.1 Title: Deep Fat Fryer(s); repair

1.2 Location of Work:

1.2.1 Galley (2-180-0-Q)

1.3 Identification:

1.3.1 Quantity (2 EA), Deep Fat Fryer, 450 VAC, 60 Hz, 3-Phase, Frymaster Model FPH217SC

2. REFERENCES:

2.1 Standard Items

2.2 DM 05-363, SERMC, RLAR-Changes- S/A 00472D, Replace Deep Fat Fryer, Mods

2.3 DM 02-013, SJAX, Replace Deep Fat Fryer

2.4 DM 02-016, SJAX, Galley Dresser Mods for Deep Fat Fryer Installation

2.5 DM 05-357, SERMC, RLAR Changes-Replace Deep Fat Fryer, Galley Mods

2.6 651-7634240 Rev A, Deep Fat Fryer Repl, Galley & ML

2.7 320-5351213 Rev T, Power System Cabling Deck Dwg 2nd Dk & Below Fr 140-212

2.8 DOD-STD-2003, Electric Plant Installation Standard Methods for Surface Ships and Submarines

2.9 MIL-STD-1310, Shipboard Bonding, Grounding, and Other Techniques for Electromagnetic Compatibility and Safety

2.10 55512-3-001 Rev B, Aqueous Potassium Carbonate Functional Test

2.11 65111-3-001 Rev A, Deep Fat Fryer Functional Test

3. REQUIREMENTS:

3.1 Accomplish the requirements of 2.2 through 2.6 using 2.7 for guidance. Fryers were previously replaced under a repair work item. References 2.2 through 2.6 will bring ship in-line with designed requirements.

3.2 Accomplish the requirements of 009-32 of 2.1 for areas in way of removals.

3.2.1 Accomplish the requirements of 009-12 of 2.1, including Table 2, Column A, Lines One through 7.

3.2.2 Grind areas smooth in way of removals.

3.2.3 Install electrical equipment and cabling in accordance with 2.8.

3.2.4 Bond and ground in accordance with 2.9.

(V)(G) "OPERATIONAL TEST"

3.2.5 Accomplish Performance Tests of 2.10 and 2.11. Align and adjust within the tolerances specified therein.

3.2.5.1 Submit one legible copy, in hard copy or electronic media, of a report listing results of testing in 3.1.6 to the SUPERVISOR within 5 working days of completion of testing.

3.3 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Fryers were replaced previously as a repair item. DM 05-363 revises FFG 28 to issued design specifications. Actual fryers will not need to be replaced.

4.2 DM 02-013, SJAX, revises quantities and model numbers of items on 2.2.

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

SHIP: USS BOONE (FFG-28)

1. None.

SHIP:	USS BOONE (FFG-28)	ITEM NO:	583-11-001
COAR:	16-582	PCN:	OC03-4389
LWT FILE NO:	583-17	CMP:	NONE
REVISED:	09 AUG 2004	PLANNER:	DANIEL MAYLE ROBERTS

1. SCOPE:

1.1 Title: Boat Davit and Winch Equipment; repair

1.2 Location of Work:

1.2.1 Weather Deck, Port Side, 01 Level at Frame 212 (1-199-2)

1.2.2 Passageway (01-108-4-L)

1.3 Identification:

1.3.1 Quantity (One EA), Gravity Lowering Davit, Type I, Single Arm, Trackway Type, Power Hoisting, Welded Steel Construction, Shown in Figure 7-2, Sheets One through 4, of 2.2, Mfr. Dwg. 56345, Mfr. Id. 56345, Mfr.: Lake Shore, Inc., APL 560270046

1.3.1.1 Quantity (One EA), Single Arm Boat Davit Sheave Assembly, Figure 7-2, Sheet 4 of 2.2

1.3.1.2 Quantity (One EA), Davit Arm and Trackway Assembly, Figure 7-5, Sheets 1 through 6 of 2.2

1.3.1.3 Quantity (One EA), Payout Mechanism Assembly, Figure 7-6, Sheets One through 3 of 2.2

1.3.1.4 Quantity (One EA), Ram and Sheave Assembly, Figure 7-9, Sheets One through 4 of 2.2

1.3.1.5 Quantity (One EA), Winch, Hydraulic, One Drum, 13703 Maximum Capacity, 41 FPM, Left Hand, Shown in Figure 7-10, Sheets One through 11, Mfr: Lake Shore, Inc., APL 620420281

1.3.2 Quantity (One EA), AC Motor, 440 Volts, 3 Phase, 60 HZ, 20 HP, 25.4 Amps, 1800 RPM, Frame 284UNDZ, Mfr: Reliance Electric Co., APL 174754005

1.3.3 Quantity (One EA), Controller, Magnetic, 440 VAC, Size 3, 3

Phase, 60 HZ, Mfr: Cutler-Hammer, Inc., Mfr. ID. 6963ED163A2, APL 151209877 (Located in 1.2.2)

2. REFERENCES:

2.1 Standard Items

2.2 S9583-AE-MMM-010, Gravity Davit and Winch for 26 FT Whaleboat, Single Arm, For FFG-7 Class Ships Maintenance and Repair Instructions with Parts List for Boat Davit and Winch

2.3 583-5351673 Rev N, Boat Handling Arr & Dets

2.4 PM 230-48 Rev A, SJAX, Application of TGIC Powder Coating

2.5 57494 Rev G, Deck Layout and Foundations

2.6 S6430-AE-TED-010, Volume I, Technical Directive for Piping Devices, Flexible Hose Assemblies

2.7 583-5351673PL Rev M, Boat Handling Arr & Dets Parts List

2.8 S9086-UU-STM-010/CH-613, Wire and Fiber Rope and Rigging

2.9 320-5351219 Rev S, Pwr Sys Cabling Deck Dwg Mn Dk & Above FR 180-250

2.10 320-5351221 Rev AA, Power System One Line Diag - 60 HZ

2.11 301-5351197 Rev AJ, Electrical Equipment Main Deck & Above Genl Arr FR 180 - 250

2.12 S6202-3221687 Rev T, Spraytight or Watertight Drum Type Master Size 00 Type T5

2.13 DOD-STD-2003, Electric Plant Installation Standard Methods for Surface Ships and Submarines

2.14 MIL-STD-1310, Shipboard Bonding, Grounding, and Other Techniques for Electromagnetic Compatibility

2.15 35401 Rev F, Smits Document, CRES Type One Bond Strap Fabrication and Installation Drawing

2.16 0963-LP-047-3010, Technical Manual for AC Magnetic Controllers

2.17 DMT 583-061 Rev D, SJAX, Gravity Davit, Rigid Hull Inflatable Boat (RHIB)

2.18 S2803-980208, Label Plates

2.19 S2803-980209, Label Plates

3. REQUIREMENTS:

(V)(G) "PRE-REPAIR TEST"

3.1 Accomplish a pre-repair test of the boat davit and winch equipment and inspect for wear, damage, and defects, using 2.2 for guidance.

3.1.1 Operate davit and winch equipment, using weights (6,000 Lbs), through two (2) complete cycles at each operating mode.

3.1.2 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.1 to the SUPERVISOR.

3.2 Remove and dispose of the boat davit winch lube oil and hydraulic fluid in accordance with federal, state, and local laws, codes, ordinances, and regulations.

3.3 Disconnect and remove the equipment listed in 1.3.1.1 through 1.3.1.5 including wire rope, using 2.2 and 2.3 for guidance.

3.4 Disassemble, clean, inspect, repair, and assemble the equipment listed in 1.3.1.1 through 1.3.1.4, using 2.2 for guidance.

3.4.1 Clean and inspect parts and components not being replaced with new for wear, damage, or defects that would render them unsatisfactory for continued service.

3.4.1.1 Clean parts and components free of foreign matter.

3.4.1.2 Visually and dimensionally inspect parts, using 2.2 for guidance.

3.4.1.3 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.4.1.2 to the SUPERVISOR within 24 hours after completion of inspection.

3.4.2 Stone and polish machined areas and bearing and seal areas to remove nicks, burrs, and minor surface imperfections.

3.4.2.1 Chase and tap exposed threaded areas to restore thread form.

3.4.3 Accomplish the requirements of 009-32 of 2.1, including Table 2, Line One, for preservation of boat davit and components listed in 1.3.

3.4.4 Accomplish powdercoating of sheaves in accordance with 2.4.

3.4.5 Repair and assemble the payout mechanism assembly in accordance with Paragraphs 6-8.10 through 6-8.11 of 2.2.

3.4.5.1 Remove existing, fit, and install new the following parts:

TOTAL QUANTITY REQUIRED	NAME OF PART	PIECE NO.	REF. NO.	FIGURE NO.	PART NO.
One EA	Hydraulic Cylinder Assy.	5	2.2	7-6	HP-336-CB-1-1/2 X 3
One EA	Seal, Oil	21	2.2	7-6	5660LPD
2 EA	Bearing, Cup	22	2.2	7-6	M86610
2 EA	Bearing, Cone	23	2.2	7-6	M86643
2 EA	Bearing, Cup	29&39	2.2	7-6	LM48510
2 EA	Bearing, Cone	30&40	2.2	7-6	LM48548
One EA	Bearing, Ball	34	2.2	7-6	60062RS
10 EA	Washer, Thrust	35/47	2.2	7-6	LTD-2240
2 EA	Seal, Oil	42	2.2	7-6	9080LUP
2 EA	Bushing	43	2.2	7-6	1191702-1
One EA	Shaft, Idler Roller	46	2.2	7-6	120493
One EA	Bushing, Idler Roller	48	2.2	7-6	1191702-2
One EA	Idler Gear Spur	49	2.2	7-6	1191612
One EA	Bushing, Idler Roller	50	2.2	7-6	1191702-3
One EA	Shaft, Sheave	65	2.2	7-6	1191582
One EA	Spacer	66	2.2	7-6	1138302
One EA	Cap Screw	67	2.2	7.6	319754-40
One EA	Gear, Spur	68	2.2	7-6	1191622
2 EA	Retainer, Grease Bearing	69	2.2	7-6	281-01044
2 EA	Bearing, Cup & Cone	70/71	2.2	7-6	387/382
3 EA	Ring, Retaining	72	2.2	7-6	RRT-387

3.4.6 Remove existing, manufacture, fit, and install new payout sheave support foundation fitted bolts in accordance with 2.5.

3.4.6.1 Plug weld a total of 4 existing holes in the payout sheave support foundation for 3/4-inch fitted bolts.

3.4.6.2 Accomplish the requirements of 009-12 of 2.1, including Table 2, Column A, Lines One through 7.

3.4.6.3 Grind flush, drill, and ream holes in accordance with

2.5.

3.4.7 Fit and install new seals, keys, shims, pins, safety wire, grease fittings, bushings, bearings, spacers, retaining rings, dowels, o-rings, washers and miscellaneous fasteners as shown in Figure 7-6 of 2.2 found to be missing, defective, or unserviceable.

3.4.7.1 Submit one legible copy, in hard copy or electronic media, of a list of new parts installed in place of those found to be missing or defective, with documenting invoices or other substantiating data, to the SUPERVISOR. Total cost of new parts excluding parts specifically identified to be replaced shall not exceed 500 dollars without prior approval of the SUPERVISOR. Total cost greater or less than above dollar amount will be the subject of an equitable adjustment.

3.5 Disassemble, clean, inspect, repair, and assemble the winch listed in 1.3.1.5 in accordance with Chapter 6 of 2.2.

3.5.1 Clean and inspect parts and components not being replaced with new for wear, damage, or defects that would render them unsatisfactory for continued service.

3.5.1.1 Clean parts and components free of foreign matter.

3.5.1.2 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.5.1 to the SUPERVISOR within 24 hours after completion of inspection.

3.5.2 Stone and polish machined areas and bearing and seal areas to remove nicks, burrs, and minor surface imperfections.

3.5.2.1 Chase and tap exposed threaded areas to restore thread form.

3.5.3 Machine a light cut on the brake and clutch drums, removing the minimum amount of metal to true up wearing surfaces.

3.5.3.1 Clean surfaces of brake and clutch drums free of oil and foreign matter.

3.5.4 Remove existing, fit, and install new the parts listed on Attachment A.

3.5.5 Fit and install new seals, keys, gaskets, shims, pins, cotter pins, safety wire, grease fittings, sleeves, bushings, bearings, spacers, retaining rings, dowels, o-rings, washers, rivets and miscellaneous fasteners as shown in Figure 7-10 of 2.2 found to be missing, defective, or unserviceable.

3.5.5.1 Submit one legible copy, in hard copy or electronic

media, of a list of new parts installed in place of those found to be missing or defective, with documenting invoices or other substantiating data, to the SUPERVISOR. Total cost of new parts excluding parts specifically identified to be replaced shall not exceed 1,000 dollars without prior approval of the SUPERVISOR. Total cost greater or less than above dollar amount will be the subject of an equitable adjustment.

(V)(G) "VERIFICATION OF OVERRUNNING CLUTCH MECHANISM"

3.5.6 Ensure Part No. D6-1-OW installed is a Hilliard Clutch Mechanism.

3.5.7 Remove existing and install new coupling assembly, Figure 7-12, Part Number C-100 of 2.2 and keys, using 2.2 for guidance.

3.5.7.1 Bore each coupling hub concentric and to size of shaft diameter within 0.001 inch total indicator reading and perpendicular to the face within 0.001 inch.

3.5.7.2 Cut keyways in each new coupling and fit new keys to the mating shafts and coupling hubs.

3.5.8 Adjust the centrifugal brake assembly in accordance with Paragraph 6-8.6.6.12 of 2.2.

3.5.9 Lubricate overrunning clutch mechanism and overrunning clutch assembly in accordance with Paragraphs 6-8.6.5.11 and 6-8.6.10.14 of 2.2.

3.6 Repair and assemble the Davit Arm and Trackway Assembly, using Paragraphs 6-8.8 of 2.2 for guidance.

3.6.1 Inspect the davit arm and trackway for structural damage, defects, wear, distortion, and deterioration immediately after removing paint and foreign matter, and before applying a primer coat.

3.6.2 Inspect foundation for cracks, areas of distortion, and deterioration in excess of 25 percent of the thickness of each member of structure.

3.6.3 Remove existing, fit, and install new the following parts:

TOTAL QUANTITY REQUIRED	NAME OF PART	PIECE NO.	REF. NO.	FIGURE NO.	PART NO.
One EA	Cable Assy	7	2.2	7-5	1173522
One EA	Pin, Hinge	12	2.2	7-5	1159062
2 EA	Bushing, Hinge	14	2.2	7-5	1159002
One EA	Plate, End	16	2.2	7-5	1138282
One EA	Shim Set	17	2.2	7-5	1163282

One EA	Shaft	21	2.2	7-5	1191492
One EA	Spacer, Shaft	22	2.2	7-5	1180882
2 EA	Retainer, Grease	23	2.2	7-5	1139202
2 EA	Bearing Cup & Cone	24	2.2	7-5	387/382
2 EA	Ring, Retaining	25	2.2	7-5	RRT-387
One EA	Plate, End	30	2.2	7-5	1138282
One EA	Shim Set	31	2.2	7-5	1163282
One EA	Shaft	35	2.2	7-5	1191502
One EA	Spacer, Shaft	36	2.2	7-5	1164562
2 EA	Retainer, Grease	37	2.2	7-5	1139202
2 EA	Bearing Cup & Cone	38	2.2	7-5	387/382
2 EA	Ring, Retaining	39	2.2	7-5	RRT-387
4 EA	Plate, End	43	2.2	7-5	1201392
8 EA	Seal	44	2.2	7-5	AV-SS
4 EA	Bearing	45	2.2	7-5	JML714110/ JML714149
2 EA	Shaft	48	2.2	7-5	1201372
One EA	Fluidic Shock	55	2.2	7-5	4DP-7770-010
One EA	Spring, Safety Pin	59	2.2	7-5	192632
One EA	Washer 1/2"	58	2.2	7-5	319714-11
One EA	Pin, Safety	60	2.2	7-5	192622
One EA	Pin, Latch Bar	62	2.2	7-5	1175842
One EA	Handle, Latch Davit Arm	66	2.2	7-5	114153
One EA	Sleeve, Latch Davit	67	2.2	7-5	1175862
One EA	Shaft	70	2.2	7-5	1171162
One EA	Bushing, Shaft	71	2.2	7-5	1171142
One EA	Latch, Davit Arm	72	2.2	7-5	116323
One EA	Retainer, Shaft Bushing	77	2.2	7-5	1171132

3.6.4 Fit and install new seals, keys, shims, pins, safety wire, grease fittings, bushings, bearings, spacers, retaining rings, dowels, washers and miscellaneous fasteners as shown in Figure 7-5 of 2.2 found to be missing, defective, or unserviceable.

3.6.4.1 Submit one legible copy, in hard copy or electronic media, of a list of new parts installed in place of those found to be missing or defective, with documenting invoices or other substantiating data, to the SUPERVISOR. Total cost of new parts excluding parts specifically identified to be replaced shall not exceed 500 dollars without prior approval of the SUPERVISOR. Total cost greater or less than above dollar amount will be the subject of an equitable adjustment.

3.7 Repair and assemble the single arm boat davit sheave assembly (Figure 7-2, Sheet 4 of 2.2) and the ram and sheave assembly, using 2.2 for guidance.

3.7.1 Inspect the single arm boat davit sheave assembly (Figure 7-2, Sheet 4 of 2.2) and the ram and sheave assembly for structural damage, defects, wear, distortion, and deterioration immediately after removing paint and foreign matter, and before applying a primer coat.

3.7.2 Inspect foundation for cracks, areas of distortion, and deterioration in excess of 25 percent of the thickness of each member of structure.

3.7.3 Remove existing, fit, and install new the following parts:

TOTAL QUANTITY REQUIRED	NAME OF PART	PIECE NO.	REF. NO.	FIGURE NO.	PART NO.
One EA	Plate. End	34	2.2	7-2	1138282
One EA	Shim Set	35	2.2	7-2	1163282
One EA	Shaft	36	2.2	7-2	1191432
One EA	Spacer	37	2.2	7-2	1138882
2 EA	Retainer, Grease	38	2.2	7-2	1139020
2 EA	Bearing Cup & Cone	39	2.2	7-2	387/382
2 EA	Ring, Retaining	40	2.2	7-2	RRT-387
One EA	Cap, End	20	2.2	7-9	1171152
One EA	Shim Set	21	2.2	7-9	1163222
One EA	Spacer	25	2.2	7-9	1171242
One EA	Shaft, Sheave	26	2.2	7-9	1191442
2 EA	Retainer, Grease	27	2.2	7-9	1129402
4 EA	Bearing, Sheave	28	2.2	7-9	29675/29624
4 EA	Ring, Retainer	29	2.2	7-9	RRT-450
One EA	Spacer, Bearing	30	2.2	7-9	1129412
One EA	Retainer, Grease	31	2.2	7-9	1138332
One EA	Cap, End	57	2.2	7-9	1171152
One EA	Shim Set	58	2.2	7-9	1163222
One EA	Spacer	62	2.2	7-9	1171242
One EA	Shaft, Sheave	63	2.2	7-9	1191442
2 EA	Retainer, Grease	64	2.2	7-9	1129402
4 EA	Bearing, Sheave	65	2.2	7-9	29675/29624
4 EA	Ring, Retainer	66	2.2	7-9	RRT-450
One EA	Spacer, Bearing	67	2.2	7-9	1129412
One EA	Retainer, Grease	68	2.2	7-9	1138332

3.7.4 Fit and install new seals, keys, shims, pins, safety wire, grease

fittings, bushings, bearings, spacers, retaining rings, dowels, washers, and miscellaneous fasteners as shown in Figures 7-2 and 7-9 of 2.2 found to be missing, defective, or unserviceable.

3.7.4.1 Submit one legible copy, in hard copy or electronic media, of a list of new parts installed in place of those found to be missing or defective, with documenting invoices or other substantiating data, to the SUPERVISOR. Total cost of new parts excluding parts specifically identified to be replaced shall not exceed 500 dollars without prior approval of the SUPERVISOR. Total cost greater or less than above dollar amount will be the subject of an equitable adjustment.

3.7.5 Remove existing, fit, and install new the following hydraulic parts:

TOTAL QUANTITY REQUIRED	NAME OF PART	PIECE NO.	REF. NO.	FIGURE NO.	PART NO.
One EA	Hydraulic Motor	1	2.2	7-7	M15S-7-A-H-7-1-B
One EA	Valve, Relief	95	2.2	7-15	R6703-1-8S-2-25
One EA	Gage, Pressure	103	2.2	7-15	VC-3914
One EA	Valve, Relief	110	2.2	7-15	482-3/8B2-0.25
One EA	Valve, Check	112	2.2	7-15	493-8-SS-2-2
One EA	Valve, Sequence	125	2.2	7-15	RSFC-JAN-BCJ

3.7.5.1 Fit and install new seals, gaskets, keys, pipe fittings, O-rings, washers and miscellaneous fasteners as shown in Figures 7-7 and 7-15 found to be missing, defective, or unserviceable.

3.7.5.2 Submit one legible copy, in hard copy or electronic media, of a list of new parts installed in place of those found to be missing or defective, with documenting invoices or other substantiating data, to the SUPERVISOR. Total cost of new parts excluding parts specifically identified to be replaced shall not exceed 500 dollars without prior approval of the SUPERVISOR. Total cost greater or less than above dollar amount will be the subject of an equitable adjustment.

3.7.6 Accomplish the requirements of 009-14 of 2.1 for the new pressure gage listed in 3.8.5.

3.7.6.1 Submit one legible copy, in hard copy or electronic media, of a list of new parts installed in place of those found to be missing or defective, with documenting invoices or other substantiating data, to the SUPERVISOR. Total cost of new parts excluding parts specifically identified to be replaced shall not exceed 50 dollars without prior approval of the SUPERVISOR. Total cost greater or less than above dollar amount will be the subject of an

equitable adjustment.

3.7.7 Remove existing and install new flexible hose assemblies. Template from existing shipboard conditions.

3.7.7.1 Each hose assembly shall be in accordance with Section 7, conforming to material of Section 5 of 2.6.

(V)(G) "HYDROSTATIC TEST"

3.7.7.2 Accomplish the requirements of Section 8 of 2.6.

3.7.7.3 Install a new CRES identification tag on each flexible hose assembly engraved in accordance with Paragraph 8.5 of 2.6.

3.7.7.4 Install new hose assemblies in accordance with Section 9 of 2.6.

(E2) 3.8 Install the equipment removed in 3.3 using 2.2 and 2.3 for guidance.

3.8.1 Accomplish the requirements of 009-32 of 2.1, including Table 2, Line One, for preservation of foundations for the equipment removed in 3.3 prior to installation of equipment.

3.8.2 Install new boat davit wire rope with new link pin and Spelter socket, Piece Numbers 7, 8, and 9 on Figure 7-3 of 2.2, in accordance with Paragraphs 6-8.4 through 6-8.4.3 Subparagraph 7 of 2.2.

3.8.2.1 Template length from existing wire rope.

(I) "POURING OF SPELTER SOCKET WITH QUALIFIED PERSONNEL"

3.8.2.2 Pour Spelter socket in accordance with Paragraphs 6-8.4.3 Sub-Paragraph 8 through 8.10 of 2.2, with qualified personnel in accordance with Paragraph 613-1.11.2.2 of 2.8.

(I) "VERIFY PULL TEST OF POURED SOCKET"

3.8.2.3 Accomplish pull test of completed Spelter socket poured to new wire rope in accordance with Paragraph 6-8.4.3, Subparagraph 8.12, of 2.2.

3.8.3 Lubricate and grease the entire boat davit assembly, using 2.2 for guidance and location of grease fittings.

3.8.3.1 Fill and service the davit winch and hydraulic system with new oil and grease, using 2.2 for guidance.

3.8.3.2 Bleed and charge the hydraulic system, using 2.2 for guidance.

3.9 Remove existing and install new the following electrical equipment,

using 2.2 and 2.9 through 2.12 for guidance:

TOTAL QUANTITY REQUIRED	NAME OF PART	PIECE NO.	REF. NO.	FIGURE NO.	PART NO.
One EA	Brake Limit Switch	79	2.2	7-10	L100WDR-1M-AO2-5
One EA	Hand Crank Limit Switch	62	2.2	7-10	NL100WDL-1M-AO2-8
One EA	Trackway Limit Sw.	78	2.2	7-5	NL100WS-2M-AL2-2
One EA	Disconnect Switch C-H 6999ED592	15	2.2	7-14 Sh2	1764-704
One EA	Drum Switch, Master C-H 6982ED68-4	-	2.2	7-14 Sh4	D982-1-6M2
One EA	Push Button Station C-H 6981ED171-24	-	2.2	7-14 Sh3	483360

3.9.1 Align and adjust limit switches in accordance with Chapter 6, Section II, Paragraphs 6-11 through 6-18 of 2.2.

3.9.2 Install new fasteners conforming to MIL-DTL-1222, Type One, Grade 304, CRES, for topside areas exposed to weather or salt spray.

3.9.3 Install electrical equipment and cabling in accordance with 2.13.

3.9.4 Bond and ground in accordance with 2.14 and 2.15.

3.9.4.1 Remove existing and install new bond straps.

3.10 Accomplish the requirements of 009-17 of 2.1 for the equipment listed in 1.3.2, using 2.2 and 2.9 through 2.11 for guidance.

3.10.1 Install electrical equipment and cabling in accordance with 2.13.

3.10.2 Bond and ground in accordance with 2.14 and 2.15.

3.10.2.1 Remove existing and install new bond straps.

3.11 Accomplish the requirements of 009-36 of 2.1 for the equipment listed in 1.3.3, using 2.2 and 2.16 for guidance.

3.11.1 Submit one legible copy, in hard copy or electronic media, of a list of new parts installed in place of those found to be missing or defective, with documenting invoices or other substantiating data, to the SUPERVISOR. Total cost of new parts excluding parts specifically identified to be replaced shall not exceed 500 dollars without prior approval of the SUPERVISOR. Total cost greater or less than above dollar amount will be the subject of an equitable

adjustment.

3.11.2 Install electrical equipment and cabling in accordance with 2.13.

3.11.3 Bond and ground in accordance with 2.14.

3.11.3.1 Remove existing and install new bond straps.

(E3) 3.12 DELETED

(E3) 3.12.1 DELETED

(V)(G) "OPERATIONAL AND WEIGHT TEST"

3.13 Accomplish operational and weight testing of the boat davit assembly in accordance with 2.17.

3.13.1 Install a new label plate on equipment in accordance with 2.18 and 2.19, listing each test, date of test, and contractor's name.

3.13.2 Submit one legible copy, in hard copy or electronic media, of completed test data to the SUPERVISOR.

3.14 Provide 25 mandays of labor and 5,000 dollars of material to accomplish additional repairs not previously identified in this Work Item, when directed by the SUPERVISOR. Total cost greater or less than above manday and dollar amounts when authorized will be the subject of an equitable adjustment.

3.14.1 Submit one legible copy, in hard copy or electronic media, of a weekly report to document labor and material expenditures to the SUPERVISOR.

3.15 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Ship's Force will remove the RHIB boat from davit prior to pre-repair operational test of boat davit and winch.

4.2 The Hilliard Clutch Mechanism may have no identifying part number markings, but there are ten capscrews which protrude from both sides. The Hilliard race (Ref 2.2, Fig 7-10, Sheet 5 of 11, Fig/Index No. 7-10-111) is 1/4-inch thick.

4.3 The following part numbers have been changed by the manufacturer:

Retainer, Grease, Bearing from 1139202 to 281-01044
Spring from 183282 to 281-00600
Guide Spring from 183352 to 281-00599

Bearing from 993L12 to 6012-2RST
Spacer Bushing from 73-87-410 to 73-37-410
Hydraulic Cylinder Assy from HP-336-CB-1 1/2 x 3 to 1191692
Bearing from JML7141101/JML714149 to 0002990/0002991
Disconnect Switch from 1764-704 to BAB3100
Nameplate from 183362 to 5B7-04033
Spring, Safety Pin 192632 to 2B1-01030

4.4 Known source for boat davit winch parts:

Lake Shore, Inc.
900 W. Breitung Ave.
P. O. Box 809
Iron Mountain, MI 49801-0809
Phone: (906) 774-1500
Fax: (906) 774-1505

4.5 Pressure gage listed in 3.8.5, Piece Number 103, Figure 7-15, Part Number VC-3914 has been replaced with Part Number 201L-254P and can be purchased from:

Trident Supply
1180 N. Lane Ave
Jacksonville, FL
Phone: (904) 781-6082

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

	TOTAL QUANTITY PROVIDED		NAME OF PART	PIECE NO.	REF NO.	NATIONAL STOCK NO.	PARA NO.
1.	One	EA	Hydraulic Cylinder Assy	5	2.2	3040012673696	3.4.5.1
2.	One	EA	Seal, Oil	21	2.2	5330010046968	3.4.5.1
3.	2	EA	Seal, Oil	42	2.2	5330014611351	3.4.5.1
4.	One	EA	Bushing, Idler Roller	48	2.2	3120012681055	3.4.5.1
5.	One	EA	Gear, Spur	68	2.2	3020012321351	3.4.5.1
6.	8	EA	Retainer, Grease Bearing	69, 23, 37, 38	2.2	533001242935	3.4.5.1
7.	9	EA	Ring, Retaining	72, 25, 39, 40	2.2	53250010777518	3.4.5.1

8.	One	EA	Centrifugal Clutch	---	2.2	3010011144013	3.5.4
9.	One	EA	Overrunning Clutch Mechanism Assy	---	2.2	3010011124222	3.5.4
10.	One	EA	Overrunning Clutch	---	2.2	3010011229513	3.5.4
11.	2	EA	Vent, Air	22	2.2	3040004106417	3.5.4
12.	One	EA	Seal	35	2.2	5330008505244	3.5.4
13.	One	EA	Bearing	36	2.2	3110005545417	3.5.4
14.	One	EA	Spacer	38	2.2	5365011996193	3.5.4
15.	One	EA	Sleeve	53	2.2	5365012680928	3.5.4
16.	2	EA	Bushing	55	2.2	3120011390641	3.5.4
17.	One	EA	Handcrank, Manual	56	2.2	2990011883504	3.5.4
18.	2	EA	Seal	102	2.2	5330008668530	3.5.4
19.	2	EA	Bearing	103	2.2	3110005543244	3.5.4
20.	One	EA	Seal	120	2.2	5330008505243	3.5.4
21.	4	EA	Spacer, Bushing	131	2.2	5365011236969	3.5.4
22.	4	EA	Bushing	132	2.2	3120010501304	3.5.4
23.	4	EA	Shoe	133	2.2	3040013106797	3.5.4
24.	4	EA	Spacer	135	2.2	5365011236968	3.5.4
25.	4	EA	Bushing (RBR)	136	2.2	3120010260878	3.5.4
26.	One	EA	Hub, Drive (AL)	137	2.2	3040013136169	3.5.4
27.	One	EA	Bearing	145	2.2	3110005420021	3.5.4
28.	One	EA	Bearing	168	2.2	311000148574	3.5.4
29.	One	EA	Bearing	170	2.2	3110005542974	3.5.4
30.	One	EA	Seal	171	2.2	5330008505240	3.5.4
31.	One	EA	Bearing	188	2.2	3110001561451	3.5.4
32.	One	EA	Bearing	191	2.2	3110005543264	3.5.4
33.	One	EA	Seal, Oil	203	2.2	5330010913321	3.5.4
34.	2	EA	Gasket	227	2.2	5330001948730	3.5.4
35.	One	AY	Coupling	C-100	2.2	3010010308912	3.5.7

36.	One	AY	Cable Assy	7	2.2	4010011977820	3.6.3
37.	2	EA	Bushing, Hinge	14	2.2	3120011553508	3.6.3
38.	3	EA	Shim Set	17, 31, 35	2.2	5365011357248	3.6.3
39.	One	EA	Pin, Safety	60	2.2	5315009220336	3.6.3
40.	One	EA	Bushing, Shaft	71	2.2	3120011015920	3.6.3
41.	4	EA	Retainer, Grease	27, 64	2.2	5330012758670	3.7.3
42.	8	EA	Ring, Retainer	29, 66	2.2	5325009234413	3.7.3
43.	One	EA	Valve, Relief	95	2.2	4820011980768	3.7.5
44.	One	EA	Valve, Relief	110	2.2	4820011903148	3.7.5
45.	One	EA	Valve, Sequence	125	2.2	4820010227672	3.7.5
46.	One	EA	Drum Master Switch	---	2.2	5930012026007	3.9
47.	One	EA	Push Button Station	---	2.2	5930012776041	3.9
48.	2	EA	Bearing, Cup	22	2.2	M86610	3.4.5.1
49.	2	EA	Bearing, Cone	23	2.2	M86643	3.4.5.1
50.	2	EA	Bearing, Cup & Cone	29, 39	2.2	LM48510/LM48548	3.4.5.1
51.	One	EA	Bearing, Ball	34	2.2	60062RS	3.4.5.1
52.	10	EA	Washer, Thrust	35/47	2.2	LTD-2240	3.4.5.1
53.	3	EA	Bushing	43	2.2	1191702-1	3.4.5.1
54.	One	EA	Shaft, Idler Roller	46	2.2	120493	3.4.5.1
55.	One	EA	Idler Gear Spur	49	2.2	1191612	3.4.5.1
56.	One	EA	Bushing, Idler Roller	50	2.2	1191702-3	3.4.5.1
57.	One	EA	Shaft, Sheave	65	2.2	1191582	3.4.5.1
58.	One	EA	Spacer	66	2.2	1138302	3.4.5.1
59.	One	EA	Cap Screw	67	2.2	319754-40	3.4.5.1
60.	20	EA	Bearing, Cup and Cone	70,71,2,4,38,39	2.2	382/387	3.4.5.1
61.	6	EA	Spacer, Bushing	15	2.2	73-37-410	3.4.5.1

62.	3	EA	Bushing (RBR)	19	2.2	73-89-410	3.4.5.1
63.	One	EA	Spacer	37	2.2	181552	3.7.3
64.	One	EA	Collar	52	2.2	1192322	3.5.4
65.	One	EA	Shaft	57	2.2	1171402	3.5.4
66.	One	EA	Decal (Release)	63	2.2	1191972	3.5.4
67.	One	EA	Decal (Engage)	64	2.2	1191982-2	3.5.4
68.	One	EA	Bearing	75	2.2	6009J	3.5.4
69.	2	EA	Washer, Flat Brass	84	2.2	319764-186	3.5.4
70.	2	EA	Washer, Flat Brass	86	2.2	319764-151	3.5.4
71.	One	EA	Clevis	87	2.2	1191552	3.5.4
72.	One	EA	Bushing, Link	88	2.2	AA-921-5	3.5.4
73.	2	EA	Bushing	90	2.2	AA-1008-9	3.5.4
74.	One	EA	Shim Set	122	2.2	AFB-15	3.5.4
75.	One	EA	Spacer	146	2.2	1113092	3.5.4
76.	One	EA	Shaft	150	2.2	1191262	3.5.4
77.	One	EA	Spacer	161	2.2	1110322	3.5.4
78.	One	EA	Spacer	164	2.2	1171282	3.5.4
79.	One	EA	Retainer, Grease	169	2.2	1170442	3.5.4
80.	One	EA	Cover	178	2.2	1191562	3.5.4
81.	One	EA	Spacer	183	2.2	1192422	3.5.4
82.	2	EA	Retainer, Grease	187/189	2.2	1192982	3.5.4
83.	One	EA	Retainer, Grease	192	2.2	1192432	3.5.4
84.	4	EA	Bearing, Ball	226	2.2	SFT-20	3.5.4
85.	One	EA	Shaft, Spooling	228	2.2	1192392-2	3.5.4
86.	One	EA	Shaft, Spline	229	2.2	1170532	3.5.4
87.	One	EA	Spring	233	2.2	2B1-00600	3.5.4
88.	One	EA	Guide, Spring	234	2.2	2B1-00599	3.5.4
89.	One	EA	Pin	236	2.2	183722	3.5.4
90.	One	EA	Pin	237	2.2	183272	3.5.4
91.	One	EA	Bushing	238	2.2	AA-1204-5	3.5.4

92.	2	EA	Bushing	240	2.2	AA-1232-6	3.5.4
93.	2	EA	Bearing	246	2.2	6012-2RST	3.5.4
94.	One	EA	Spacer	247	2.2	183302	3.5.4
95.	One	EA	Nut, Wing	262	2.2	319764-177	3.5.4
96.	One	EA	Eyebolt, Handcrank	263	2.2	183592	3.5.4
97.	One	EA	Plate, Winch Mod	268	2.2	1234352	3.5.4
98.	One	EA	Pin, Hinge	12	2.2	1159062	3.5.4
99.	3	EA	Plate, End	16,30,34	2.2	1138282	3.5.4
100.	One	EA	Shaft	21	2.2	1191492	3.5.4
101.	One	EA	Spacer, Shaft	22	2.2	1180882	3.5.4
102.	One	EA	Shaft	35	2.2	1191502	3.5.4
103.	One	EA	Spacer, Shaft	36	2.2	1164562	3.5.4
104.	4	EA	Plate, End	43	2.2	1201392	3.5.4
105.	8	EA	Seal	44	2.2	0002990	3.5.4
106.	4	EA	Bearing	45	2.2	0002991	3.5.4
107.	2	EA	Shaft	48	2.2	1201372	3.5.4
108.	One	EA	Fluidic Shock	55	2.2	4DP-7770-010	3.6.3
109.	One	EA	Spring, Safety Pin	59	2.2	2B1-01030	3.6.3
110.	One	EA	Washer 1/2 inch	58	2.2	319714-11	3.6.3
111.	One	EA	Pin, Latch Bar	1175842	2.2	1175842	3.6.3
112.	One	EA	Handle, Latch Davit Arm	66	2.2	114153	3.6.3
113.	One	EA	Sleeve, Latch Davit	67	2.2	1175862	3.6.3
114.	One	EA	Shaft	70	2.2	1171162	3.6.3
115.	One	EA	Latch, Davit Arm	72	2.2	116323	3.6.3
116.	One	EA	Retainer, Shaft Bushing	77	2.2	1171132	3.6.3
117.	One	EA	Shaft	36	2.2	1191432	3.7.3
118.	One	EA	Spacer	37	2.2	1138882	3.7.3
119.	2	EA	Cap, End	20,57	2.2	1171152	3.7.3

120.	2	EA	Shim, Set	21,25	2.2	1163222	3.7.3
121.	2	EA	Spacer	25,62	2.2	1171242	3.7.3
122.	2	EA	Shaft, Sheave	26,63	2.2	1191442	3.7.3
123.	8	EA	Bearing, Sheave	28,65	2.2	29675/29624	3.7.3
124.	2	EA	Spacer, Bearing	30,67	2.2	1129412	3.7.3
125.	2	EA	Retainer, Grease	31,68	2.2	1138332	3.7.3
126.	One	EA	Motor, Hydraulic	1	2.2	M15S-7-A-H-7 1-	3.7.5
127.	One	EA	Gage, Pressure	103	2.2	PGL-A63N815005	3.7.5
128.	One	EA	Valve, Check	112	2.2	493-8-SS-2-2	3.7.5
129.	One	EA	Brake Limit Switch	79	2.2	L100WDR-1M-A02-	3.9
130.	One	EA	Trackway Limit Switch	78	2.2	NL100WS-2M-AL2-	3.9
131.	One	EA	Disconnect Switch C-H 6999ED	1764-704	2.2	1764-704	3.9

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

ATTACHMENT A Boat Davit and Winch Repair Parts List
Print All Attachments

SHIP: USS BOONE(FFG-28)

SPECIFICATION NUMBER: SSP-582-05

ERRATA NUMBER: 4

THIS PERMANENT CHANGE UPDATES THE SPECIFICATION BID PACKAGE.

THE FOLLOWING ITEMS ARE REPLACED:

123-11-003

512-07-001

531-11-001

992-31-001

DATED: 27 JANUARY 2005

SHIP:	USS BOONE (FFG-28)	ITEM NO:	123-11-003
COAR:	16-582	PCN:	EM02-8085
LWT FILE NO:	123-14	CMP:	NONE
REVISED:	05 MAY 2004	PLANNER:	STEINDLER CURTIS MATHISEN MAYLE ROBERTS

1. SCOPE:

1.1 Title: Waste Water Drain and Oily Waste Drain Tank; repair

1.2 Location of Work:

1.2.1 5-292-1-W 342 Gallons Capacity

1.3 Identification:

1.3.1 Tank Level Indicating System, Mfr: Gems Sensors Inc.

(E4) 1.3.2 Quantity One (Ea.) Tank Level Transmitter Gems P/N 36485-27-300-0-L Item number 61

(E4) 1.3.3 Quantity One (Ea.) Tank Level Transmitter Gems P/N 36460-10-2700-0-L Item number 109

(E4) 1.3.4 Quantity One (Ea.) "T" cable Gems P/N 36890/A-F5-J/B-JC-F30-J-LP

2. REFERENCES:

2.1 Standard Items

2.2 130-5351030 Rev J, Deck Pltfm and Fr - Bhd and Stan 271 - 329 1/2

2.3 262-5351169 Rev C, Misc Structural Tanks and Conn AMR No. 3

2.4 167-5351045 Rev B, Manhole & AVHC List

2.5 SN345-AB-MMO-010/MOD 45600, Technical Manual for Tank Leve3l Indicating (TLI) System, Type No 45600

2.6 0967-LP-608-3010, Technical Manual for Aux Control Console

2.7 437-5351340 Rev H, HTM, Fuel, and Water Pressure and Tank Level Indicating Alarm System Circuits HA, PG, TD, and TK Cabling Diagram

(E4) 2.8 437-5351340PL Rev G, HTM, Fuel, and Water Pressure and Tank Level Indicating Alarm System Circuits HA, PG, TD, and TK Cabling Diagram Parts List

(E4) 2.9 202-5351118 Rev F, Auxiliary Control Console System Ckt K-ACC Cabling Diagram

(E4) 2.10 202-5351119 Rev K, Auxiliary Control Console System Ckt K-ACC Interconnecting Wiring

(E4) 2.11 DOD-STD-2003, Electric Plant Installation Standard Methods for Surface Ships and Submarines

(E4) 2.12 MIL-STD-1310, Shipboard Bonding, Grounding, and Other Techniques for Electromagnetic Compatibility

(E4) 2.13 43721-4-003 Rev A, Operational Test Tank Level Indicators

3. REQUIREMENTS:

3.1 Accomplish the requirements of 009-32 of 2.1, including Table 4, Lines 11, 12, 13 or 14, Columns A and B, for tank listed in 1.2.

3.2 Accomplish a visual inspection of tank top plating and vertical bulkhead stiffeners, for structural integrity, deterioration, pitting, cracks, and areas of damage or distortion.

3.2.1 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.1 to the SUPERVISOR.

3.2.2 Accomplish the requirements of 009-25 of 2.1 for preliminary air test of tank in location listed in 1.2. Test pressure shall be 2 PSIG.

3.3 Accomplish repairs to tank listed in 1.2 using 2.2 through 2.4 for guidance and material requirements, as follows:

3.3.1 Provide 2 mandays of labor and 200 dollars of material for removal and reinstallation of interferences required to accomplish work in each tank, when directed by the SUPERVISOR. Total cost of interferences greater or less than above manday and dollar amounts when authorized will be the subject of an equitable adjustment.

3.3.1.1 Submit one legible copy, in hard copy or electronic media, of a weekly report to document labor and material expenditures to the SUPERVISOR.

3.3.2 Remove existing and install new 10 square feet of 10.2-pound plate in way of damaged or deteriorated plating on tank as designated by the

SUPERVISOR.

3.3.3 Remove existing and install new raised manhole including manhole cover (Item #5 of 2.4), with new gasket and hardware.

3.3.4 Remove existing and install new 6 linear feet of vertical stiffeners on forward bulkhead 292 in way of deteriorated stiffeners, as designated by the SUPERVISOR.

3.3.5 Accomplish the requirements of 009-12 of 2.1, including Table 2, Columns A, Lines One through 7.

3.4 Accomplish the requirements of 009-25 of 2.1 for air test of the tank listed in 1.2. Test pressure shall be 2 PSIG. Allowable drop in pressure: None.

3.4.1 Accomplish the requirements of 009-25 of 2.1 for the air hose test of forward bulkhead frame 292, in way of vertical stiffener replacement. Allowable leakage: None.

3.5 Accomplish the requirements of 009-32 of 2.1, including Table 4, Lines 11, 12, 13 or 14, Columns C and D for interior surface of tank.

(E4) 3.6 Remove existing and install new wiring and Tank Level Indicator component parts, identifed in 1.3, using 2.5 through 2.12 for guidance.

3.6.1 Template exact size, configuration, and location from existing shipboard conditions.

3.6.2 Authorized replacement cable is identified as thermoplastic-jacketed, water-blocked cable (Raychem EPD-6032 or equal). Do not install any nitrile-jacketed, water-blocked FSS-2 Type cable in Fuel Oil, JP-5, Synthetic Oil, Waste Oil, Oily Waste, Contaminated Fuel, or Contaminated Oil tanks. Support the electrical cabling at a maximum of two feet between clamps for horizontal runs, and four feet between clamps for vertical runs. Coil and support excess cabling.

3.6.3 Remove unused foundation(s), cable hanger(s), wireway(s), bracket(s), and stud(s). Chip and grind surfaces flush and smooth in way of removals.

3.6.4 Record and retain electrical hook-up data for reuse using 2.7 for guidance.

(V)(G) "OPERATIONAL TEST"

(E4) 3.7 Accomplish an operational test of equipment and circuits, in accordance with 2.13.

3.7.1 Submit one legible copy, in hard copy or electronic media, of a

report listing results of the requirements of 3.5 to the SUPERVISOR within 5 days of completion of testing.

3.8 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

(E4) 4.1 Know scource for Gems packing and nitrile bushings is:
Gems Sensors
1 Cowels Road
Plainville, CT 06062
Attn: Chris Dimaria
Phone: (860)793-4360
E-mail CDimaria@Gemssensors.com

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

SHIP:	USS BOONE (FFG-28)	ITEM NO:	512-07-001
COAR:	16-582	PCN:	PE01-0015
LWT FILE NO:	512-07	CMP:	NONE
REVISED:	11 MAY 2004	PLANNER:	CURTIS MAYLE

1. SCOPE:

1.1 Title: Ventilation Fan; repair

1.2 Location of Work:

(E4) 1.2.1 01 Level Frame 182

1.3 Identification:

(E4) 1.3.1 Quantity (One EA), Ventilation Fan, AES02-184-2, Vaneaxial, Size A 1/2 A4W5, 660 CFM, Mfr. Dwg. Number FM86517, Mfr: Reliance Electric Industrial Company, APL: 174660633

2. REFERENCES:

2.1 Standard Items

(E4) 2.2 512-5351416 Rev U, Ductwork and Components Ventilation and Air Cond

(E4) 2.3 512-5351416PL Rev P, Ductwork and Components Ventilation and Air Cond Parts List

2.4 320-5351219 Rev S, Pwr Sys Cabling Deck Dwg Mn Deck & Abv Fr. 180-250

2.5 801621-023, A.C. Motor, Reliance Electric Company

2.6 302-5351203 Rev G, List of Motors & Controllers - Ventilation

2.7 PM 230-126, SJAX, Ventilation Gasket Material

2.8 DOD-STD-2003, Electric Plant Installation Standard Methods for Surface Ships and Submarines

2.9 MIL-STD-1310, Shipboard Bonding, Grounding, and Other Techniques for Electromagnetic Compatibility

2.10 51211-4-004, HVAC Volumetric Test and Inspection General Procedures

3. REQUIREMENTS:

3.1 Accomplish the requirements of 009-17 of 2.1 for the equipment listed in 1.3., using 2.2 through 2.6 for guidance.

3.1.1 Accomplish the requirements of 009-36 of 2.1 for the motor controller associated with ventilation fan listed in 1.3.1, using 2.6 for guidance.

3.1.2 Install a metal tag with contractor's name, date, and stating "PCB FREE" to all disturbed or new ventilation flanges, access covers, and closures where gaskets are required.

3.1.3 Accomplish the requirements of 009-32 of 2.1 for interior and exterior surfaces of vaneaxial fan spool housing.

3.1.4 Remove existing and install new fan motor rubber flex connectors.

3.1.5 Install the vent motor and fan assembly in vent housing, using new gasket material conforming to 2.7.

3.1.5.1 Install new conduit between motor and fan housing.

3.1.6 Inspect and verify ventilation housing flanges for leak-free joints.

3.1.7 Install electrical equipment and cabling in accordance with 2.8.

3.1.8 Install new fasteners conforming to MIL-DTL-1222, Type One, Grade 5, carbon steel, zinc plated for below deck areas and Type One, Grade 316, CRES, for topside areas exposed to weather and salt spray.

3.1.9 Bond and ground equipment and cabling in accordance with 2.9.

(V)(G) "OPERATIONAL TEST"

3.2 Accomplish an operational test of the ventilation system using 2.10 for guidance, to ensure system functions to its designed sequence of operation.

3.2.1 Verify correct phase sequencing and fan rotation.

3.2.2 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.2 to the SUPERVISOR within 5 working days of completion of testing.

3.3 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Removed gasket material may contain Polychlorinated Biphenyl (PCB).

5. GOVERNMENT FURNISHED MATERIAL(GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

SHIP:	USS BOONE (FFG-28)	ITEM NO:	531-11-001
COAR:	16-582	PCN:	EM02-8317 EM02-8318
LWT FILE NO:	531-31	CMP:	NONE
REVISED:	16 APR 2004	PLANNER:	DANIEL MAYLE ROBERTS

1. SCOPE:

1.1 Title: Distilling Plant Equipment; repair

1.2 Location of Work:

1.2.1 Auxiliary Machinery Room Number 3 (5-292-0-E)

1.3 Identification:

1.3.1 Quantity (2 EA), Number One and 2 Distilling Plant Unit, 4000 GPD, Model S167ST, Type submerged Tube, Mfr: Aqua-Chem Inc., APL 080030086E

2. REFERENCES:

2.1 Standard Items

2.2 0958-LP-032-7010, Submerged Tube Distilling Plant, Model S167ST, Installation, Operation, Maintenance and Repair Instructions with Parts List

2.3 432-7923, Shell, Evaporator

2.4 S9531-BH-MMI-010/Heat Exchanger, Repair of Heat Exchangers, Coolers, and Distilling Plants

2.5 DM 98-189, SJAX, Installation of Backing Plates on Evaporator Shell Openings

3. REQUIREMENTS:

3.1 Remove the insulation and lagging from the shell and water box assemblies on the equipment listed in 1.3.1.

(V)(G) "HYDROSTATIC TEST"

3.2 Accomplish a hydrostatic test of each distilling plant at 10 PSIG

in accordance with Paragraphs 8-42 and 8-44 of 2.2.

3.3 Remove the access covers, condenser, demister, waste heat bundle, supression baffle, and inspection opening on each evaporator plant, using 2.2 for guidance.

3.3.1 Visually inspect internal and external surfaces of the evaporator shell for cracks, deterioration, and defects, using 2.2 through 2.4 for guidance.

3.3.1.1 Submit one legible copy, in hard copy or electronic media, of a report listing results of the requirements of 3.3.1 to the SUPERVISOR.

3.4 Deliver the condenser, waste heat bundle, and distillate cooler to a qualified facility for cleaning.

3.4.1 Accomplish the requirements of 009-09 of 2.1 for cleaning heat exchangers using "RYDLYME" or equal cleaning solution in accordance with manufacturer's specifications, using 2.2 and 2.4 for guidance.

(V)(G) "VISUAL INSPECTION"

3.4.1.1 Accomplish a visual inspection of the heat echangers to verify complete removal of scale and deposits.

3.5 Repair each evaporator shell as follows:

(E4) 3.5.1 DELETED

3.5.2 Install 4 square feet of doubler plating (total of 8) in way of each evaporator shell plating on each evaporator shell as designated by the SUPERVISOR.

3.5.2.1 Size and configuration of the new doubler plates shall be determined by the area and location of the defects identified by inspection reports.

3.5.2.2 New shell doubler plates shall be 90/10 copper nickel plate conforming to Mil-C-15726.

3.5.2.3 Remove and install 2 each shell stiffeners (total of 4) on each evaporator shell to facilitate doubler plate installations.

3.5.2.4 Accomplish the requirements of 009-12 of 2.1, including Table One, Column D, Lines One through 10.

3.5.3 Accomplish approximately one square foot (total of 2 square feet) of clad welding in way of evaporator shell plating on each evaporator shell as designated by the SUPERVISOR.

3.5.3.1 Fair in weldment to achieve a smooth flat finish.

3.5.3.2 Accomplish the requirements of 009-12 of 2.1, including Table One, Column D, Lines One through 10.

(E4) 3.5.4 Provide 6 mandays of labor and 500 dollars of material to accomplish additional repairs, when directed by the SUPERVISOR. Total cost greater or less than above manday and dollar amounts when authorized will be the subject of an equitable adjustment.

3.6 Accomplish the installation of backing plates on the waste heat tube bundle flange on each evaporator shell opening in accordance with 2.5.

3.6.1 Accomplish the requirements of 009-12 of 2.1, including Table One, Column D, Lines One through 10.

3.7 Install the 3 each heat exchangers in way of the evaporator shells, with new gaskets in accordance with 2.2. Do not install waterboxes at this time.

(V)(G) "HYDROSTATIC TEST"

3.7.1 Accomplish a hydrostatic test of the tube bundles at 10 PSIG in accordance with Paragraph 8-45 of 2.2. Allowable leakage: none.

3.7.2 Roll leaking tubes in accordance with Paragraph 6-17 of 2.2.

3.7.3 Remove existing, fit, and install new tubes, up to 10 percent of total number of tubes in each tube bundle, found to be damaged or leaking in accordance with Paragraph 6-22 of 2.2.

3.7.4 Accomplish hydrostatic testing in accordance with 3.7.1. Allowable leakage: none.

3.8 Assemble each evaporator using new gaskets in accordance with 2.2.

3.8.1 Remove existing, fit, and install new demister, Piece Number 13, Figure 3-1 of 2.2 in accordance with Paragraph 6-29 of 2.2.

3.8.2 Fit and install new zinc anodes, using 2.2 for guidance.

3.8.3 Remove existing and install new salt water piping joint gaskets and fasteners. Gaskets shall conform to UNAFLEX, Type 96 or 87. Type 94 or Type 95, AMS-G-6855 Grade I, Class 80, or MIL-G-22050, Grade 2 or 3, are to be used for suction sea chest steam out connections.

(V)(G) "HYDROSTATIC TEST"

3.8.4 Accomplish a hydrostatic test of each distilling plant at 10 PSIG in accordance with Paragraphs 8-42 and 8-44 of 2.2. Allowable leakage: None

3.9 Accomplish the requirments of 009-11 of 2.1, to install new insullation, lagging, and reusable covers on new and disturbed surfaces.

3.10 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

(V)(G) "OPERATIONAL TEST"

3.11 Accomplish an operational test of the distilling plant at normal operating temperatures and pressure, using Chapter 2 of 2.2 for guidance.

3.11.1 Measure and record operational readings every 30 minutes.

3.11.2 Inspect new and disturbed joints for tightness. Allowable leakage: None.

3.11.3 Submit one legible copy, in hard copy or electronic media, of completed test data to the SUPERVISOR.

4. NOTES:

4.1 None.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

SHIP:	USS BOONE (FFG-28)	ITEM NO:	992-31-001
COAR:	16-582	PCN:	EXSY-S133
LWT FILE NO:	992-31	CMP:	NONE
REVISED:	17 SEP 2004	PLANNER:	STEINDLER MAYLE ROBERTS

1. SCOPE:

1.1 Title: Cleaning and Pumping; accomplish

1.2 Location of Work:

1.2.1 Eductor Room (5-51-0-Q)

1.2.2 Air Conditioning Machinery Room (3-84-0-E)

1.2.3 APU Machinery Room (4-100-0-E)

1.2.4 Sewage Collecting and Holding and Boiler Room (4-160-0-Q)

1.2.5 Fire Pump Room (4-172-1-E)

1.2.6 Auxiliary Machinery Room No. One (5-180-0-E)

1.2.7 Ship's Service Diesel Enclosure (5-180-01-E)

1.2.8 Auxiliary Machinery Room No. 2 (5-212-0-E)

1.2.9 Ship's Service Diesel Enclosure (5-226-1-E)

1.2.10 Ship's Service Diesel Enclosure (5-226-2-E)

1.2.11 Engine Room (5-250-0-E)

1.2.12 Ship's Service Diesel Enclosure (3-292-2-E)

1.2.13 Auxiliary Machinery Room No. 3 (5-292-0-E)

1.2.14 Steering Gear Room (5-368-01-E)

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 MIL-STD-777, Schedule of Piping, Valves, Fittings, and Associated Piping Components for Naval Surface Ships

2.3 Intentionally Left Blank

2.4 S9086-T8-STM-010/CH-593, Pollution Control

2.5 S9086-SP-STM-010/CH-542, Gasoline and JP-5 Fuel Systems

2.6 MIL-HDBK-291, Military Handbook Cargo Tank Cleaning

2.7 PM 230-44, SJAX, Inventory Schedule Petroleum Products

3. REQUIREMENTS:

3.1 Open, ventilate, empty, clean, render dry, and maintain any tank or space including adjacent tanks, spaces, or piping systems where the scope of repairs will result in a need for certification during the performance of this Job Order.

3.1.1 Intentionally Left Blank.

3.1.2 Ensure that harmful vapors, fumes, and mists are ventilated to the exterior of the vessel.

3.1.3 Submit one legible copy, in hard copy or electronic media, of a report listing the location, origin, and quantity of each manhole cover removed in 3.1 in respect to its tank, ship's frame and distance off centerline to the SUPERVISOR.

3.1.4 Install expandable plugs or blanks, painted blaze orange, in associated tank piping at the first valve or flange. Associated piping is defined as, "An assembly of pipe, tubing, valves, fittings and related components forming a whole or a part of a system which starts or terminates in subject area, thus being common to and associated with the same."

3.1.4.1 Submit one legible copy, in hard copy or electronic media, of a report listing the location of each expandable plug and blank to the SUPERVISOR.

3.1.4.2 Remove each expandable plug or blank upon completion of repairs and testing, and install new gaskets and fasteners in accordance with applicable Categories and Group of 2.2.

3.1.5 Clean and disinfect each CHT/sewage tank and associated piping in accordance with 2.4.

3.1.5.1 Maintain one system for Ship's Force use at all times.

3.1.6 Clean each tank and any associated piping in accordance with 2.5 through 2.6.

3.2 Steam clean each area where the removal of preservative is required.

3.2.1 Install new rust preventative compound conforming to MIL-PRF-16173, Grade One.

3.2.2 Install new Monel fill and drain plugs conforming to QQ-N-281, Class B, to replace those removed to accomplish steam cleaning.

3.3 Pump tanks containing petroleum products to the low suction level of each tank.

3.3.1 Products shall be run through a flow meter calibrated in gallons.

3.3.2 Off-loading/on-loading of petroleum products shall be accomplished during daylight hours only.

3.3.3 Hoses, pumps, and storage containers shall be clean and dry prior to start of off-loading/on-loading.

3.3.4 Submit one legible copy, in hard copy or electronic media, of completed 2.7 to the SUPERVISOR.

3.3.5 Remove and dispose of liquids not being stored for reuse, including compensating sea water from the compensating fuel tanks, sludge, and debris, in accordance with federal, state, and local laws, codes, ordinances, and regulations.

3.3.5.1 Fill the compensating fuel tanks with sea water upon completion of work.

3.4 Take samples of petroleum products from each tank prior to removal from ship and storage.

3.4.1 Accomplish analysis of petroleum products two working days prior to off-loading.

3.4.2 Accomplish a chemical analysis of each sample of distillate fuel and JP-5.

3.4.2.1 Test each sample for flashpoint, using the PENSKY-MARTENS method. The flashpoint should be in the range specified by 2.5.

3.4.2.2 Measure and record the API Gravity at 60 degrees Fahrenheit.

3.4.2.3 Check the bottom sediment and water, using a centrifuge.

For distillate fuel, sediment and water should be less than 0.1 percent. For JP-5, sediment shall not be greater than 8 milligrams per liter and there should be no visible traces of water.

3.4.2.4 Measure the acid number. The acid number shall be within five percent of the original value upon return to ship.

3.4.2.5 Submit one legible copy, in hard copy or electronic media, of results of the analysis of 3.4.2 to the SUPERVISOR.

(V)(G) "VERIFY OFF-LOAD COORDINATION"

3.5 Coordinate the off-loading or transferring of fluids through the ship's Damage Control Assistant (DCA), via the SUPERVISOR, to maintain ship's stability and to prevent flooding.

3.5.1 Obtain a list from the SUPERVISOR of petroleum soundings for tanks prior to start of pumping operations.

(V)(G) "VERIFY CLEAN CONTAINER"

3.5.2 Off-load and store in clean storage containers, petroleum products in the following amounts

(E4) 3.5.2.1 Distillate fuel 0 gallons

(E4) 3.5.2.2 JP-5 0 gallons

(E4) 3.5.2.3 Lubricating oil 0 gallons

3.6 Off-load and store in clean storage container or off-load and transport to the nearest Naval Fuel Depot (NFD), at the discretion of the contractor based upon cost effectiveness, the distillate fuel and JP-5.

3.6.1 Notify the SUPERVISOR prior to transporting the off-loaded petroleum products.

3.6.2 Deliver to the nearest NFD when directed by the SUPERVISOR. Conveyance will be accepted from 0730 to 1600, Monday through Friday, holidays excluded. The NFD will accomplish a petroleum analysis requiring a time duration of one hour prior to off-loading each conveyance.

3.6.3 Notify the NFD Director a minimum of five working days prior to delivering the off-loaded petroleum products, via the SUPERVISOR.

3.6.4 Submit one legible copy, in hard copy or electronic media, of completed 2.7, signed by the NFD Director, listing the amount and type of petroleum products received, to the SUPERVISOR within 24 hours after disposition.

3.6.5 Distillate fuel and JP-5 fuel off-loaded and stored by the

contractor shall be sampled and analyzed from each container in accordance with 3.4.1 through 3.4.3 prior to on-loading.

3.6.5.1 Submit one legible copy, in hard copy or electronic media, of each analysis to the SUPERVISOR prior to on-load.

3.6.6 Provide ship with same type, grade, and quantity of distillate fuel and JP-5 off-loaded and stored, when directed by the SUPERVISOR.

3.7 Off-load and store in clean storage containers the lube oil and hydraulic oil from the tanks. On-load when directed by the SUPERVISOR.

3.7.1 Accomplish the requirements of 009-63 of 2.1.

3.7.1.1 Test and analyze samples from each tank prior to off-loading.

3.7.1.2 Test and analyze samples from each storage container prior to on-loading.

3.8 Clean each bilge of spaces listed in 1.2 free of trash, debris, grease, oily liquids, and other liquid contaminants prior to the initial certification.

3.8.1 Maintain each bilge to a clean, dry condition for the duration of the availability on a 7-day-a-week, 24-hour-a-day basis.

3.8.2 Remove and dispose of an additional 25,000 gallons of non-hazardous liquids from bilges listed in 1.2, generated by the Navy, after initial cleaning and certification is obtained. Removals shall be measured. Total amount of liquids removed greater or less than the above amount shall be the subject of an equitable adjustment.

(V)(G) "SOURCE DETERMINATION"

3.8.2.1 Submit one legible copy, in hard copy or electronic media, of a report listing the quantities (in gallons) removed in 3.7.2, responsible source of liquids, and date liquids were removed after each pumping operation.

3.8.3 Remove and install pumping equipment three evolutions after space turnover to support the requirements of 3.8.1 and 3.8.2.

(V)(G) "CLEAN AND DRY BILGES"

3.8.4 Prior to space turnover, when directed by the SUPERVISOR, accomplish a final detergent cleaning of each bilge of spaces listed in 1.2, removing all trash, debris, grease, oily liquids, and other liquid contaminants from the bilges.

3.8.5 Accomplish a chemical analysis of liquid waste, sludge, and

debris in accordance with applicable federal, state, and local laws, codes, ordinances, regulations, and Naval Facility requirements.

3.8.5.1 One chemical analysis is required for each containment (Engine Room, Space, etc.) or for each type of liquid.

3.8.5.2 Submit one legible copy, in hard copy or electronic media, of the results of each chemical analysis to the SUPERVISOR. Also identify the volume of the liquid from which each sample was taken.

3.9 Clean each chain locker free of silt, mud, and foreign matter.

3.10 Dispose of liquids in accordance with federal, state, and local laws, codes, ordinances or regulations.

3.11 Tank Closure Repairs:

3.11.1 Clean, chase, or tap threaded areas prior to installing covers.

3.11.2 Weld up, drill, and tap a total of 25 stripped manhole cover bolting ring holes for tanks opened in 3.1.

3.11.3 Remove existing and install new a total of 25 missing or broken manhole cover studs for tanks opened in 3.1 conforming to MIL-DTL-1222, Type IV, Grade 304.

3.11.4 Accomplish the requirements of 009-12 of 2.1, including Table 2, Columns A and D, Lines One through 7.

3.11.5 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

(V)(G) "INSPECT TANK CLEANLINESS"

3.12 Inspect each tank for cleanliness prior to final closing.

3.12.1 Submit one legible copy, in hard copy or electronic media, of a report listing the names of personnel present during inspection to the SUPERVISOR within 72 hours after completion of final closing.

3.12.2 Install manhole cover for each tank, using new gaskets conforming to SAE-AMS-C-6183, Class One, new CRES washers conforming to FF-W-92, Type A, Grade One, Class B, and new brass nuts conforming to MIL-DTL-1222, Type One, Grade 464, and/or CRES hex head cap screws conforming to ASTM A307.

3.12.2.1 Install new gaskets conforming to ASTM D2000-75E, new hex nuts conforming to ASTM A307, and new hex head cap screws conforming to ASTM A307 for DDG-51 Class ships' sewage tanks.

3.12.2.2 Install new gaskets conforming to A-A-55759, Class 3A,

Grade 30, and new hex head brass nuts conforming to MIL-DTL-1222, Type I, for DDG-51 Class ships' high temperature compartments.

3.12.2.3 Install new hex head, self-locking nuts (nickel-copper) conforming to NASM-25027 for LSD-41 and LSD-49 Class ships.

3.12.2.4 Install new cotton wax wicking to studs prior to installing washers and nuts for DDG-51 Class ships.

3.12.2.5 Install new gaskets conforming to SAE-AMS-C-6183, Class One, using gasket sealant conforming to MIL-S-45180, new CRES 303 nuts conforming to MIL-DTL-1222, and new galvanized steel washers conforming to SAE-1040, for compensating tanks on LHD and LHA Class ships.

3.12.2.6 Install new bolts conforming to MIL-DTL-1222, Grade 5, Grade 316 (CRES), for flush deck bolted manhole covers.

3.12.3 Install access cover for each potable water, feedwater, and sewage tank, using new gaskets conforming to MIL-PRF-1149, new nuts conforming to MIL-DTL-1222, Type I, Grade 5, zinc coated, and new CRES washers conforming to FF-W-92, Type A, Grade One, Class B.

3.12.4 Confirm that all personnel have exited the space prior to closure of tanks, voids, and cofferdams. Designate one person to account for all personnel who may have entered the space.

3.13 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Location(s) of the Local Naval Fuel Depot(s) receiving off-loaded fuels is/are available from the SUPERVISOR.

4.2 For the purpose of this Work Item, the term "tank or space" includes voids, cofferdams, and inaccessible or confined areas.

4.3 Consider each bilge to contain contaminated oily salt water.

4.4 Booklet of General Plans and Tank Sounding Tables are available for review at the office of the SUPERVISOR.

4.5 The SUPERVISOR will provide sequence of tanks and dates of inspections referenced in 3.1.1.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

SHIP: USS BOONE (FFG-28)

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

SHIP: USS BOONE(FFG-28)

SPECIFICATION NUMBER: SSP-582-05

ERRATA NUMBER: 5

THIS PERMANENT CHANGE UPDATES THE SPECIFICATION BID PACKAGE.

THE FOLLOWING ITEMS ARE REPLACED:

631-11-002

DATED: 28 JANUARY 2005

SHIP:	USS BOONE (FFG-28)	ITEM NO:	631-11-002
COAR:	90-582	PCN:	EM03-A143
LWT FILE NO:	631-12	CMP:	NONE
REVISED:	15 APR 2004	PLANNER:	STEINDLER MATHISEN ROBERTS

1. SCOPE:

(E5) 1.1 Title: AMR 2 Bilge; preserve (OPTION ITEM)

1.2 Location of Work:

1.2.1 Auxiliary Machinery Room Number 2 (5-212-0-E)

1.2.1.1 Diesel Enclosure (5-226-1-E)

1.2.1.2 Diesel Enclosure (5-226-2-E)

1.3 Identification:

1.3.1 Not Applicable

2. REFERENCES:

2.1 Standard Items

2.2 633-5351722 Rev N, Zinc Protectors

2.3 633-5351722PL Rev G, Zinc Protectors Parts List

(E1) 2.4 111-5351020 Rev J, Shl Pltg, Fr & Long Fr 210 1/2 - 271

(E1) 2.5 622-5351707 Rev P, Floor Plates Grtg and Handrails Aux Mchry Rm No 2

(E1) 2.6 622-5351707PL Rev N, Floor Plates Grtg and Handrails Aux Mchry Rm No 2 Parts List

3. REQUIREMENTS:

3.1 Remove the deck plates and gratings in each location listed in 1.2. Tag for location and hold for reinstallation.

3.1.1 Prior to removal, inspect each deck plate and grating for structural integrity, deterioration, pitting, cracks, and areas of damage or distortion.

3.1.1.1 Submit one legible copy, in hard copy or electronic media, of a report listing type, extent, and location of defects to the SUPERVISOR.

3.1.2 Accomplish a visual inspection of the bilge areas no later than the first 20 percent of the availability for structural integrity, deterioration, pitting, cracks, and areas of damage or distortion.

3.1.2.1 Accomplish an Ultrasonic Inspection in 50 locations as directed by the SUPERVISOR.

3.1.2.2 Submit one legible copy, in hard copy or electronic media, of a report listing type, extent, and location of defects, including UT results, to the SUPERVISOR.

(E1) 3.1.3 Accomplish clad welding of 10 square feet of shell plate and support structure in location listed in 1.2, using 2.4 for guidance, as designated by the SUPERVISOR.

(E1) 3.1.3.1 Areas greater than 45 per cent thickness reduction and covering more than 2 square feet for each incident shall be replaced.

(E1) 3.1.3.2 Accomplish the requiements of 009-12 of 2.1, including Table 2, Column A and B, Lines One through 7.

3.2 Remove flange spray shields from the piping system flanges. Inspect, tag for location, and retain flange shields suitable for reuse.

3.3 Remove existing and install new zinc anodes in accordance with 2.2 and 2.3. The areas covered by zincs shall receive a complete preservation system prior to installing the zincs. Do not paint the zincs.

3.4 Observe the following safety precautions:

3.4.1 The spaces being cleaned and preserved shall have no machinery or drains operating. The contractor and the SUPERVISOR shall discuss and agree on any machinery remaining energized, including any additional monitoring or other safety precautions that may be required.

3.4.2 No smoking, welding, burning or other source of ignition such as hot metal surfaces shall be allowed in the machinery spaces during work specified herein.

3.4.3 Provide adequate lighting and ventilation during work specified herein, using non-sparking blowers, explosion-proof lights and electrical connections. Paint will not dry correctly if fumes are allowed to accumulate above the paint.

3.5 Install covers, blanks, and plugs to ensure that no damage will result

to the ship, ship's machinery, electrical and piping systems, and equipment during work specified herein.

3.5.1 Mask-off and provide protective covering on valve stems, labels, flow and identification plates, and markings.

3.6 Accomplish the requirements of 009-32 of 2.1, including Table 3, Line 12, 13, 14, or 15, for bilge surfaces in each location listed in 1.2.

3.6.1 Use contrasting colors for each coat and stripe coat.

3.6.2 Final coat shall be bilge red.

3.6.3 Longitudinal and transverse structural members can be used as boundaries to define the work sections. Each section should be fully hand/power tool cleaned and primed before work is started on the next section.

3.6.4 Accomplish the requirements of 009-32 of 2.1, including Table 5, Line One, for the coating system on piping and valves. Do not power tool clean piping systems (solvent and hand tool clean only).

3.6.5 Accomplish the requirements of 009-32 of 2.1, including Table 4, Line 45, Column A, for the deck gratings and upper side of the deck plates removed in 3.1.

3.6.6 Disturbed areas above level of bilge cleaning and preservation shall be prepared and preserved to match existing. Establish as original and paint markings on piping systems and equipment disturbed during cleaning and preservation operations specified herein.

3.7 Remove protective covering installed in 3.5.

3.8 Reinstall flange shields retained in 3.2.

3.8.1 Install 80 new silicone coated aluminized cloth spray shields on flammable liquid piping system flanges below the lower level of floor plates and gratings in accordance with ASTM-F-1138.

3.9 Reinstall the deck plates and gratings removed in 3.1. Straighten 10 deck plates and 2 gratings prior to reinstallation. Reweld and drill 100 fastener holes where deteriorated and unusable.

3.9.1 Remove existing and install new 50 linear feet of deck support structure, as designated by the SUPERVISOR.

(E1) 3.9.2 Install new fasteners (screws and nutserts) in accordance with 2.5 and 2.6.

3.9.3 Accomplish the requirements of 009-12 of 2.1, including Table 2,

Column A, Lines One through 7.

3.10 Accomplish final cleaning as follows:

(V)(G) "CLEAN AND DRY BILGES FOR TOUCH-UP"

3.10.1 Clean bilge areas in each space listed in 1.2. Rinse with fresh water, pump down, and dispose of liquids and debris to obtain a clean, dry condition of the individual bilges.

3.10.2 Remove and dispose of oily liquids, sludge, and debris in accordance with federal, state, and local laws, codes, ordinances, and regulations.

3.10.2.1 Accomplish two chemical analyses as designated by the SUPERVISOR.

3.10.2.2 Submit one legible copy, in hard copy or electronic media, of the chemical analyses to the SUPERVISOR.

3.11 Accomplish the requirements of 009-32 of 2.1 for new and disturbed surfaces.

4. NOTES:

4.1 Bilges are defined as that area of a compartment from the keel to the top of the existing bilge red line. Included are vertical keel, shell plating and attached structural members, bulkheads, tank top plating and manhole covers, bilge wells and sumps, foundations, floor plates/gratings and support structure, piping and associated support structure, valves, and normally painted equipment therein.

5. GOVERNMENT FURNISHED MATERIAL (GFM):

5.1 LLTM:

1. None.

5.2 PUSH MATERIAL:

1. None.

5.3 KITTED MATERIAL:

1. None.

DRAFT

NAVSEA
STANDARD ITEM

FY-06 (CH-X)

ITEM NO: 009-32
DATE: XX XXX 2005
CATEGORY: II

1. SCOPE:

1.1 Title: Cleaning and Painting Requirements; accomplish

2. REFERENCES:

2.1 Standard Items

2.2 S9086-VD-STM-010/020/030/CH-631, Preservation of Ships in Service

2.3 S9086-VG-STM-010/CH-634, Deck Coverings

2.4 ASTM F718, Shipbuilders and Marine Paints and Coatings Product/Procedure Data Sheet

2.5 29 CFR 1915, Occupational Safety and Health Standards for Shipyard Employment, Subparts C and Z

2.6 Systems and Specifications, Steel Structures Painting Manual, Volume 2

2.7 NACE Book of Standards

2.8 ASTM D4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel

2.9 ISO 8502-3, Assessment of Dust on Steel Surfaces Prepared for Painting (Pressure Sensitive Tape Method)

2.10 S9086-CN-STM-020/CH-79, Damage Control - Practical Damage Control

2.11 S9086-RK-STM-010/CH-505, Piping Systems

3. REQUIREMENTS:

3.***1*** Provide a written notice to the SUPERVISOR and the Commanding Officer's designated representative of potential exposure of personnel to toxic or hazardous substances.

3.***1***.1 Post the notice at the ship's Quarterdeck or other designated location for each job or separate area at least 4 hours, but not more than 24 hours, prior to the start of work. The notice shall contain the following information:

3.***1***.1.1 Ship's name and hull number

3.***1***.1.2 Work Item number

3.***1***.1.3 Compartment or frame number

3.***1***.1.4 Identification of hazard

3.***1***.1.5 Date and time of work process

3.***1***.1.6 Identification of engineering and work practice controls

3.***1***.2 Deliver notification of work planned over a weekend or Monday following that weekend to the Commanding Officer's designated representative not later than 0900 on the Friday immediately preceding that weekend.

3.***1***.3 Deliver notification of work planned on a federal holiday and on the day following the federal holiday to the Commanding Officer's designated representative not later than 0900 on the last working day preceding the federal holiday.

3.***2*** Submit material certification of abrasive blast media conforming to MIL-A-22262 or A-A-1722 prior to blasting. The abrasive blast medium must be listed on the Qualified Products List (QPL), or have written notification from NAVSEA indicating QPL approval.

3.***2***.1 Spongejet media and process may be used as an alternative to obtain SSPC-SP-10 or SSPC-SP-11 cleanliness.

3.***2***.2 Recyclable ferrous metallic abrasive materials conforming to AB-3 of 2.6 may be used as an abrasive blast media for steel substrates.

3.***2***.2.1 Cleanliness of recyclable ferrous metallic abrasive materials shall be measured and maintained in accordance with the requirements of AB-2 of 2.6.

3.***2***.2.2 Submit one legible copy, in hard copy or electronic media, of the results of the quality control requirements of Paragraph 6 of AB-2 and quality assurance test required by Paragraph 5 of AB-3.

3.***3*** Record and maintain in-process records as blasting, painting, inspections, and tests are being accomplished. Provide a hard copy to the SUPERVISOR at the conclusion of each evolution involving (G) points by the end of the work shift or prior to the start of the next evolution requiring documentation, whichever is sooner, for preservation of the following

critical coated areas. These records shall be in accordance with Section 11 of 2.2 and Paragraph 634-3.35 of 2.3, and shall include 3.***3***.1 through 3.***3***.9:

SURFACES	TYPE OF SUBSTRATE
Freeboard	Steel and aluminum
Hangar, flight, catapult, and vertical replenishment decks	Steel and aluminum
AFFF station decks and coaming	Steel and aluminum
Chain lockers	Steel and aluminum
RAST track trough	Steel and aluminum
Interior surfaces of intake vent plenums, defined as combustion air intakes (gas turbine, diesel, and steam) and other vent system intake plenums with openings greater than 7 square feet	Steel and aluminum
Uptake spaces	Steel and aluminum
Tanks (including sumps)	Steel and aluminum
Voids	Steel and aluminum
Cofferdams	Steel and aluminum
Well deck overheads	Steel and aluminum
Bilges	Steel and aluminum
Underwater hull surfaces (including capastic shields)	All

3.***3***.1 Surface preparation method, including name of abrasive and QPL 22262 revision number from which the product was purchased, or copy of NAVSEA product approval letter and surface profile readings

3.***3***.2 Ambient and metal surface temperatures, relative humidity, and dew point at 4-hour intervals, unless otherwise specified in 2.2 or 2.3 during preservation process. Information for environment shall be recorded from conditions on-site, in close proximity to the structure.

3.***3***.3 Name of paint/non-skid, manufacturer, batch number, and date of manufacture and expiration, including original manufacturer's certificate of compliance and material conformance test data in accordance with Section 11 of 2.2

3.***3***.4 Material safety data sheets and 2.4 for each proprietary coating used

3.***3***.5 Surface conductivity

3.***3***.6 Elapsed time between coats

3.***3***.7 Dry film thickness (DFT) for the total system

3.***3***.8 Name and type of spray equipment utilized

3.***3***.9 Record temperature of paint and non-skid storage 24 hours in advance of use. Temperature shall be maintained within the limits specified

in 2.2 and 2.3 and shall be recorded once per shift during the 24-hour period prior to use.

3.***3.***10 Submit one legible copy, in hard copy or electronic media, of recorded in-process information on QA Checklist Forms 631-12.5 of 2.2 (see 4.7) and Figure 634-3-25 of 2.3 to the SUPERVISOR within 24 hours of completion of preservation of each separate location identified in the invoking Work Item.

3.***3.***11 Submit one legible copy, in hard copy or electronic media, of the manufacturer's warranty documents to the SUPERVISOR when specified in the Job Order.

3.3.12 Submit one legible copy, in hard copy or electronic media, of 2.4 to the SUPERVISOR.

3.***4*** Consider marine coatings to contain heavy metals (e.g., lead, cadmium, or chromium), hexavalent chromium, crystalline silica and/or other toxic or hazardous substances.

3.***4.***1 Submit one legible copy, in hard copy or electronic media, of the written rationale when no personnel monitoring will be conducted, providing the basis for the decision not to engage in personnel monitoring to the SUPERVISOR, prior to the disturbance of coatings.

3.***4.***2 Submit one legible copy, in hard copy or electronic media, of the laboratory analysis, listing results of personnel monitoring to the SUPERVISOR within 10 working days of any such testing.

3.***5*** Accomplish preservation operations in accordance with the following:

(I) "ENVIRONMENTAL READINGS"

3.***5.***1 Ambient and metal surface temperatures, relative humidity, and dew point at a minimum of ***8-hour*** intervals during the preservation process shall be recorded from conditions on-site, in close proximity to the structure being coated.

3.***5.***1.1 These environmental readings shall be taken from 48 hours prior to, to 48 hours after, the application of a coat of paint, ***using a data logger (Veriteq Instruments, Inc., Model No. KT-2000-NEI or equivalent), recording data at a minimum of every 5 minutes***. For potable and feedwater tanks, environmental readings shall be taken from the start of surface preparation to 7 days after application of the final coat.

3.5.1.2 If a data logger described in 3.5.1.1 is not used, environmental readings shall be taken every 4 hours vice every 8 hours.

3.***5.***2 Coatings, with the exception of non-skid, applied on areas listed in 3.***3*** shall be applied only when the temperature of the prepared

substrate is greater than 50 degrees Fahrenheit and a minimum of 5 degrees Fahrenheit above the dew point.

3.***5***.2.1 International Interbond 998, Alocit 28.15, and all MIL-PRF-23236, Type VII, Class 17 products, are exempt from dew point and relative humidity requirements.

(I) or (I)(G) "CLEANLINESS" (See 4.4)

3.***5***.3 Accomplish degreasing/cleaning a maximum of 4 hours prior to surface preparation to ensure removal of surface contaminants, such as sea salts, loose rust, dust, mud, marine growth, grease, oil, and other petroleum products.

3.***5***.3.1 If evidence of contamination exists, accomplish degreasing/cleaning a maximum of 4 hours prior to application of each coat of paint to ensure removal of surface contaminants.

3.***5***.4 Accomplish the safety precautions as specified in 2.2, 2.5, and the Job Order during surface preparation and the application or removal of marine coatings.

3.***5***.5 Painters and coating inspectors shall be certified in accordance with Section 11 of 2.2.

3.***5***.5.1 Companies performing preservation of areas listed in 3.***3*** shall be certified in accordance with QP-1 of 2.6.

3.***5***.5.2 Plural Component Pump Tenders and Coating Applicators shall be certified in accordance with SSPC Marine Plural Component Applicator Certification (PCAC), or NAVSEA 05M approved equivalent.

3.***5***.6 For areas listed in 3.***3***, blasters shall be certified in accordance with SSPC-C-7 or NAVSEA 05M approved equivalent, and Section 11 of 2.2.

3.***5***.7 Select the specific requirements of 2.2, 2.3, 2.6, and 2.7 for determining the type of surface preparation required and coating system options that are available for use in accomplishing the work specified unless otherwise directed in the Work Item.

3.***5***.8 For non-skid coatings, requirements outlined in Paragraph 634-3.27 of 2.3 shall be followed.

3.***5***.9 Limit surfaces being prepared for preservation in size to an area which can be coated prior to the occurrence of flash rusting and/or oxidation. Remove any flash rust prior to painting, except as follows:

3.***5***.9.1 Surfaces cleaned by waterjetting shall meet the applicable Standard for flash rust.

3.***5***.9.2 Detergents and inhibitors shall not be used in the waterjetting water without written approval from the coating manufacturer and the SUPERVISOR.

3.***5***.10 For steel and aluminum plates, shapes, and ferrous piping, abrasive blast equal to NACE 2/SSPC-SP-10 of 2.6 and 2.7, with a surface profile that meets the requirements of 3.***5***.18, and prime, prior to shipboard installations except in the areas where weld joints remain to be accomplished, or unless specified otherwise in the invoking Work Item. Non-ferrous piping, which is to be preserved shipboard, shall be hand tool (non-impact tools only) cleaned in accordance with SSPC-SP-2 of 2.6. Preservation of non-ferrous piping one inch or less does not require preparation.

3.***5***.11 For touch up, disturbed, and/or inaccessible areas, the minimum surface preparation shall be that shown in the applicable Tables, except that an SSPC-SP-11 is acceptable for areas originally requiring an NACE 2/SSPC-SP-10 or NACE 5/SSPC-SP-12.

3.***5***.11.1 Touch-up is defined within this Standard Item as preservation operations on cumulative surface areas less than one percent of the total area being preserved, with no individual area greater than 10 square feet. Included under touch-up operations are new and disturbed areas of less than 10 square feet. The requirements of 3.***3***, 3.***5***.1, 3.***5***.3, 3.***5***.18, 3.***5***.19, 3.***7***.8, 3.***13***, and 3.***14*** are waived for these touch-up areas. Paragraph 3.***5***.20 (surface preparation) shall be verified by the accomplishing activity as (I) inspections prior to coating applications. This waiver does not apply to potable or feedwater tanks; no requirements shall be waived for the touch up of potable or feedwater tanks.

3.***5***.11.2 Disturbed areas are defined as any surface that requires cleaning and/or painting due to existing paint finish being damaged in the accomplishment of work specified by the Job Order.

3.***5***.11.3 Closure plates/hull accesses and their associated welds will not be considered a disturbed surface and shall be cleaned and painted by the applicable table. Deviations to the requirements may be authorized by the SUPERVISOR based on size, location, application, or severity of condition of coating system being applied.

3.***5***.11.4 Although spot repair, partial preservation, and full preservation are different in the proportions of area being preserved, each shall meet the requirements stated in this document as if full preservation were being done.

3.***5***.11.5 Spot repair is defined as a small, localized area being preserved that is greater in size than what is defined as touch-up.

3.***5***.11.6 Partial preservation is defined as preservation of a section of an entire space or location.

3.***5***.11.7 Full preservation is defined as preservation of an entire space or location.

3.***5***.12 Feather edges of well-adhered paint remaining after cleaning for all surface preparation methods.

3.***5***.13 Clean, prior to painting, insulation and lagging free of foreign matter and contaminants that would prevent adherence of paint.

3.***5***.14 Clean and dry prepared and previously painted surfaces free of foreign matter which will affect adherence of paint coatings. Inclusions such as dust and debris in the paint film shall be removed prior to the application of the next coat.

3.***5***.15 Remove foreign matter and debris resulting from cleaning operations.

3.***5***.16 Record and restore existing painted labels, compartment designations, hull markings, and other painted information which will be removed or covered during cleaning and painting operations.

3.***5***.17 Install masking material for protection of equipment and items not to be painted during preservation. Shipboard items not to be painted are listed in Paragraphs 631-8.22 of 2.2.

(I) or (I)(G) "SURFACE PROFILE" (See 4.4)

3.***5***.18 Following blasting or waterjetting operations, surface peak-to-valley profile must be checked. Five profile readings shall be taken for the first 1,000 square feet (with a minimum of 5 profile readings taken); for each additional 1,000 square feet, 2 profile readings shall be taken. Each group of profile readings shall average 2 to 4 mils, with no reading less than one mil nor more than 5 mils. If such profile is not present, proper profile must be established. Profile readings shall be taken in accordance with Method C of 2.8.

3.***5***.18.1 When surface profile requirements of the manufacturer's instructions are greater than that specified in this item, they shall supersede this item.

3.***5***.18.2 Waterjetting will not establish a profile. If this method is employed and a profile does not exist or is insufficient to meet the requirements, the contractor will still be required to establish sufficient profile.

3.***5***.18.3 Spongejet may not establish a sufficient profile. If this method is employed and the profile is insufficient to meet the requirements, the contractor will still be required to establish sufficient profile.

3.***5***.18.4 Following power tool cleaning to SSPC-SP-11, surface profile shall be checked. Five profile readings shall be taken for the first 1,000 square feet (with a minimum of 5 profile readings taken); for each additional 1,000 square feet, 2 profile readings shall be taken.

(I)(G) "CONDUCTIVITY MEASUREMENT"

3.***5***.19 Accomplish conductivity measurements for ***surfaces listed in 3.3.***

3.***5***.19.1 Accomplish surface conductivity checks using available field or laboratory test equipment on the freshly prepared surface. Five determinations shall be conducted every 1,000 square feet. Areas less than 1,000 square feet shall have 5 determinations made. For immersed applications, such as tanks and bilges, conductivity measurements shall not exceed 30 microsiemens/cm. For non-immersed applications, conductivity measurements shall not exceed 70 microsiemens/cm. Samples shall be collected using the Soluble Salt Conductivity Measurement According to Bresle Method or approved equivalent. If conductivity measurements exceed the respective values, water wash the affected areas with fresh water. Dry the affected areas and remove all standing water. Accomplish surface conductivity checks on affected areas. Repeat step until satisfactory levels are obtained.

3.***5***.19.2 Accomplish the requirements of 3.***5***.19 and 3.***5***.19.1 within 4 hours prior to application of each coat of paint, if evidence of contamination of the surface exists.

(I) or (I)(G) "SURFACE PREPARATION" (See 4.4)

3.***5***.20 Verify surface preparation for the coating systems specified in Tables One through 5 in accordance with 2.2 through 2.4, 2.6, and 2.7.

3.***5***.20.1 Surface cleanliness for dust shall meet Rating 1, Class 2, of 2.9.

3.***6*** Store paint in a cool, dry place, do not expose to freezing temperatures or direct sunlight, and in accordance with manufacturer's instructions. Storage of non-skid coatings shall be in accordance with Table 634-3-6 of 2.3.

3.***7*** Coating systems shall be applied in accordance with the applicable tables and 2.2. Paints shall not be thinned.

3.***7***.1 A tack coat is defined as a layer of paint with a reduced film thickness (e.g., 1-2 mils, vice 5 mils); it does not imply to add thinner.

3.***7***.2 When using 2-part coating systems (epoxies and polyurethanes), use of "partial kits" is prohibited unless using verified proportioning equipment or other verified measuring equipment (gravimetric).

3.**7**.3 For commercial underwater hull coating systems including anti-corrosive paints and anti-fouling paints, the manufacturer's primer must be used with his anti-fouling coating. No substitution is allowed.

3.**7**.3.1 Successive coats of anti-corrosive paints shall be of a contrasting color.

3.**7**.4 Utilize water-based latex fire retardant paints in preference to chlorinated alkyd based fire retardant paints. Such paints are available under MIL-PRF-24596 or a Naval Sea Systems Command (NAVSEA) approved product (Formula 25A). Accomplish the surface preparation and coating application requirements of 2.2 when using water-based paints.

3.**7**.5 Apply the first coat of MIL-P-15931 (Formulas 121/129) or MIL-PRF-24647 anti-fouling paint when the last coat of epoxy paint is still slightly tacky (approximately 4 to 6 hours after paint application) and in accordance with 2.4. Tacky is defined as that curing (drying) stage when a fingertip pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger. If the epoxy is hard (usually 8 hours after application), apply a tack coat of epoxy paint one to 2 mils wet film thickness (WFT) over previously painted surfaces. The tack coat shall be allowed to cure (dry) to when a fingertip pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger, then apply the next full coat of the system.

3.**7**.6 Mix and apply the approved proprietary coatings in accordance with manufacturer's instructions, except for requirements when invoked for surface preparation and minimum DFT as specified in Tables One through 5. The requirements of 3.**7**.5 also apply to manufacturers' proprietary coatings.

3.**7**.7 Mix and apply the Navy Polyamide Epoxy MIL-DTL-24441 coatings in accordance with the following, except the DFT shall be as specified in Tables One through 5. The MIL-DTL-24441 coatings mixing ratio is one-to-one by volume. The components of the various formulas are not interchangeable. Blend each component thoroughly prior to mixing the components. After mixing equal volumes of the 2 components, the mixture must be thoroughly stirred. For Type III only, the stand-in times listed below must be observed. There is no induction time for Type IV.

3.**7**.7.1 Stand-in time (induction time) is defined as the time immediately following the mixing of the components A and B during which the critical reaction period of these components is initiated and is essential to the complete curing of the coating. During stand-in time the mixture must be thoroughly stirred at least once every 20 minutes to avoid hot spots caused by localized overheating from the chemical reaction.

Surface Temperature at Job Site (Degrees Fahrenheit)	Stand-In Time in Hours
35 to 50	2 hours at 70 degrees Fahrenheit (paint temperature)
50 to 60	2 hours at job site temperature
60 to 70	One hour to 1-1/2 hours at job site temperature
70 and Above	1/2 to one hour at job site temperature

(I) or (I)(G) "STRIPE COAT INSPECTION" (See 4.4)

3.**7**.8 For all areas where stripe coating is required, as denoted in Tables One through 5, apply stripe coat to edges, weld seams, welds of attachments and appendages, cutouts, corners, butts, foot/handholds (including inaccessible areas such as back side of piping, under side of I-beams), and other mounting hardware (non-flat surface) in accordance with 2.4. Stripe coat these areas after the prime coat has dried. Stripe coating applied shall be neat in appearance, minimizing extra thickness applied to edges as well as streaks and drops of paint. The stripe coat shall encompass all edges as well as at least a one-inch border outside each edge and weld.

3.**7**.8.1 Each stripe coat shall be of the specified paint system and shall be a different color from both the paint over which it is being applied and the next coat in the system (if a product only comes in 2 colors, the stripe coat shall contrast with the color of the previous coat). First coat inspection shall be conducted prior to stripe coat application.

3.**7**.9 Drying time between coats of specified coating for potable and feedwater tanks shall be a minimum of 48 hours at a minimum temperature of 70 degrees Fahrenheit, using heated air if necessary to maintain temperature. Ventilation shall be sufficient to ensure continuous flow of air through the tanks with at least one complete air change every 4 hours. Mixing and stand-in times (induction times) shall be in accordance with manufacturer's instructions.

3.**7**.10 Following coating applications, potable and feedwater tanks shall be continuously ventilated for at least 7 consecutive days prior to filling with water. Maintain a minimum temperature of 70 degrees Fahrenheit within the tanks. Ventilation shall ensure continuous flow of air with a minimum of one complete air change every 4 hours. Verify and document daily that ventilation is properly installed and running.

3.**7**.10.1 Freshly painted potable water tanks shall be rinsed at least twice with fresh water to ensure cleanliness of tank.

3.***8*** Prior to application of any solvent-based alkyd coating, such as MIL-PRF-24635, over an epoxy coating, allow epoxy to dry until it is no

longer tacky (as defined in 3.**7**.5). It shall be dry to the touch but not fully cured before overcoating with any solvent-based alkyd coating.

3.***9*** Prior to application of any water-based coating, such as MIL-PRF-24596, over an epoxy coating, allow epoxy to dry at least 16 hours before overcoating with any water-based coating.

3.***10*** Overcoating of MIL-DTL-24441 with MIL-DTL-24441:

3.***10***.1 If less than 7 days has elapsed since the application of the prior coat, the next coat may be applied after visual inspection to confirm the absence of grease, dirt, salts, or other surface contaminants. If surface contamination is suspected as a result of visual inspection or for other reasons, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse sufficient to remove all detergent and contaminants. The next coat of MIL-DTL-24441 shall be applied after surfaces are completely dried.

3.***10***.2 If more than 7 days but less than 30 days has elapsed since the application of the prior coat, the entire surface shall be cleaned using a fresh water and detergent wash followed by a fresh water rinse sufficient to remove all detergent and contaminants. Ensure the surface has fully dried, then apply a tack coat (one to 2 mils WFT) of the last coat applied or Formula 150. The tack coat shall be allowed to cure (dry) to when a fingertip pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger, then apply the next full coat of the system. This condition can only be met one time during the painting system application.

3.***10***.3 If greater than 30 days has elapsed since the application of the prior coat, the entire surface shall be cleaned using a fresh water and detergent wash, followed by a fresh water rinse sufficient to remove all detergent and contaminants. After allowing the surface to dry, the surface shall be lightly abraded to degloss the epoxy, using a brush-off abrasive blast (preferred), power sanding, or hand sanding using 80-120 grit, then apply the next full coat of the system.

3.***11*** Intentionally left blank.

3.***12*** Overcoating of non-MIL-DTL-24441 epoxy coatings:

3.***12***.1 Follow the manufacturer's direction for the allowable overcoat window, not to exceed 30 days. The 30-day maximum may be extended beyond 30 days if specifically approved in writing by NAVSEA. Where the base coat and topcoat are provided from different manufacturers, the term "manufacturer" refers to the manufacturer of the base coat. A tack coat shall not restart the 30-day window.

3.***12***.1.1 If either the manufacturer's recommendation or the 30-day window (or a specific extension approved by NAVSEA) has been exceeded, the coating shall be reactivated by either following the manufacturer's

recommendation for re-activating the surface or cleaning the entire surface using a fresh water and detergent wash, followed by a fresh water rinse sufficient to remove all detergent and contaminants. After allowing the surface to dry, the surface shall be lightly abraded to degloss the epoxy, using a brush-off abrasive blast (preferred), power sanding, or hand sanding using 80-120 grit.

3.***12***.2 Comply with the time requirements of 2.3 for application of non-skid over primer coat.

(I) or (I)(G) "DRY FILM THICKNESS" (See 4.4)

3.***13*** Measure DFT of each coat applied for the coating systems listed in Tables One through 5. This includes any stripe coats.

3.***13***.1 When measuring full coats to determine total system thicknesses denoted in Tables One through 5, DFT readings shall not be taken in areas where stripe coatings have been applied.

3.***13***.2 DFT readings for each coat shall be taken in accordance with Method PA-2 of 2.6.

3.***13***.2.1 WFT readings are required in lieu of DFT readings for any coat that must be in a tacky state (as defined in 3.**7**.5) when the next coat is applied. Refer to film thickness conversion table in 2.6. WFT equals DFT divided by percent solids by volume (when percent solids by volume is expressed as a decimal, i.e., 60 percent equals 0.60).

3.***13***.3 A WFT gage shall be used to verify the application of proper paint thickness for the primer coat of all coating systems listed in Tables One through 5. Readings shall be taken to confirm this, but need not be recorded.

3.***13***.4 For underwater hull paint systems, record a minimum of 30 DFT readings per 1,000 square feet. Baseline DFT readings of underwater hull paint system shall be taken after final coat is applied and Quality Assurance spot readings in accordance with 2.6 are completed.

3.***13***.5 Apply an additional coat of any single coat of a multiple coat system when that coat measures less than its specified DFT. Multiple coats shall be of contrasting color. DFT of each coat, including an additional coat if applied, shall not exceed the specified maximum thickness for each coat.

(I)(G) "HOLIDAY INSPECTION"

3.***14*** Perform a visual holiday check on each coat of the system for areas listed in 3.***3***. Any holiday found shall be marked and touched up.

3.***14***.1 Remove masking material and paint overspray after cleaning and painting operations are completed.

4. NOTES:

4.1 Thicknesses specified in Tables One through 5 are DFT and are minimum requirements, unless otherwise specified.

4.2 Total DFT encountered during removal may exceed specified table thicknesses.

4.3 Total removal of ablative coating is not required in accordance with Paragraph 631-5.2.3.3 of 2.2. The Work Item will specify the degree of removal.

4.4 The paragraphs referencing this note are considered an (I)(G) if the inspection/test is on a critical surface as listed in 3.***3***. If the inspection/test is not on a critical surface as listed in 3.***3,*** then the paragraph is considered a (I). These inspection point requirements also apply to build-up coats to obtain proper millage.

4.5 The word "new" in "new and disturbed surfaces" refers to all material installed on the ship by the contractor regardless of source.

4.6 Structural requirements of Notes (23) and (24) will be addressed by the invoking Work Item.

4.7 QA Checklist Forms referred to in 3.***3***.10 are invoked by Advance Change Notice 7A to 2.2.

4.8 Preservation Process Instructions (PPIs) provide detailed instructions and procedures for specific ship preservation evolutions to include safety precautions, surface preparation, selection of appropriate coating systems, and third-party quality assurance check points. See new Section 12 of 2.2 for details. Section 12 is provided in ACN 5A (Control Number N00024-00-FJB25).

4.9 SSPC training information can be found at http://www.sspc.org.

4.10 Table One is for underwater hull areas. Table 2 is for exterior areas. Table 3 is for interior spaces. Table 4 is for tanks and voids. Table 5 is for miscellaneous areas.

NOTES OF TABLES ONE THROUGH 5

(1) Use Sherwin Williams P23RQ62/P23VQ80 in lieu of P23RQ82/P23VQ80 and use P23AQ61/P23VQ80 in lieu of P23AQ81/P23VQ80 for cold weather applications below 50 degrees Fahrenheit. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(2) Boottop - The boottopping is defined as the black area from minimum load waterline at which the ship is expected to operate to 12 inches above the maximum load waterline. The black paint is an anti-fouling paint conforming to MIL-PRF-24647 for a 5-year, 7-year, or 10 to 12-year service life, or MIL-P-15931 for 2-year service life. Haze gray shall be carried to the black anti-fouling paint which marks the upper boottop paint. Do not apply the black anti-fouling paint over haze gray MIL-PRF-24635.

(3) Ameron Amercoat 235 can be used for cold weather application below 40 degrees Fahrenheit. Apply at 5 mils DFT (minimum) per coat. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(4) Use International FCA 321 in lieu of FPA 327, or KHA414 in lieu of KHA062, for cold weather application below 50 degrees Fahrenheit. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(5) Use Hempel Hempadur 4514U in lieu of 4515 for cold weather applications below 50 degrees Fahrenheit. Do not apply coating below 35 degrees Fahrenheit without approval of the SUPERVISOR.

(6) A minimum of 24 hours drying time shall be allowed after last coat prior to undocking.

(7) To ensure a continuous primer base, areas adjacent to those being coated with proprietary primer and non-skid listed on QPL's for MIL-PRF-24667 shall be coated with the same primer and compatible topcoat.

(8) These systems shall also be invoked for catapult wing voids and catapult exhaust blowdown trunks.

(9) DOD-E-24607, chlorinated alkyd, may also be used. MIL-PRF-24596, Type I, Grade C, Classes 1 and 2, or DOD-E-24607 must be used if surface and ambient temperature are less than 50 degrees Fahrenheit.

(10) The "inner shield" is defined as the portion of the capastic shield that extends 3 ft. from the anode in all directions. The "outer shield" is defined as the portion of the capastic shield from the inner shield to a distance of 6 ft. from the anode. Repair of the inner shield area is required when total deteriorated inner shield surface area is from 0 to 2 percent, and no single spot is greater than one square foot. Repair of the outer shield area is required when total deteriorated outer

shield surface area is from 0 to 10 percent, and no single spot is greater than one square foot. Replacement (new installation) of the entire capastic shield is required when either of the above criteria is exceeded (damage to the inner shield is greater than 2 percent, OR damage to the outer shield is greater than 10 percent, OR any single spot damage is greater than one square foot).

(11) The following steps shall be used for repair/replacement of capastic shields. Ensure QA checkpoints are conducted in accordance with 3.***3***.

a. Protect surrounding area from damage. Mask anode surfaces with heavy cardboard or plywood.

b. Abrasive blast.

c. For repair, areas of undamaged capastic shall be roughened and feathered into the bare metal areas to provide a profile for adhesion of the new capastic. Feather edges at least 1 inch using power tools or hand sanding. To prevent fracturing of shield, do not feather using abrasive blasting.

d. The capastic material shall be mixed, applied, and cured in accordance with manufacturer's instructions.

e. The capastic should be faired in and made smooth from the anode for a distance of at least 10 inches to minimize hull turbulence.

f. After the capastic has cured, sanding shall be accomplished to smooth any rough areas and to degloss the surface for the Anticorrosive to be applied over it.

g. During visual inspection, ensure anode surfaces are undamaged and free of paint and capastic.

h. The anode should remain covered with heavy cardboard or plywood to prevent damage or contamination by the ship's underwater hull coating system until just before undocking.

(12) These systems may also be invoked for preservation of decks in spaces that are prone to wear and do not receive deck covering.

(13) Anchors below lower boottopping limit shall be painted in accordance with normal underwater hull anti-corrosion/anti-fouling system.

(14) For MCM, and MHC ships, use black walnut shells for abrasive blast media.

(15) Anchor chain and detachable links shall be marked and color coated in accordance with NSTM Chapter 581 unless otherwise directed by the Work Item.

(16) Apply one mist coat (1-2 mils) of Ameron PSX 700 after blast and prior to remaining coats where invoking Work Item requires anchor chain inspections prior to preservation.

(17) Colors shown in Tables 631-8-13 and 631-8-14 of 2.2, shall be specified by TYCOM or ship's Commanding Officer in accordance with Chapter 631-8.23.4.

(18) Restore each compartment marking in accordance with 2.10 and 2.11.

(19) MIL-PRF-24667 non-skid systems shall be applied as complete systems (primer, intermediate coat when MIL-PRF-24667, Type III, coatings are invoked, non-skid, and color topping) from the same manufacturer except for the color topping. When a manufacturer does not have approved color topping, use another compatible manufacturer's color topping. MIL-PRF-24667, Type I, when required, shall be specified in the invoking Work Item. Boundaries of areas receiving non-skid not specified by specific ship's drawings shall be in accordance with 2.3.

(20) Prior to accomplishing painting of wooden underwater hulls, allow the hull to dry to a moisture content of 15 percent. Readings shall be taken with an electronic moisture meter, Sovereigh Moisture Master or equal. Cover grounding plates and zincs prior to painting.

(21) Blasted surface metal must be degreased following walnut shell blasting. Even traces of residual oil will degrade coating adhesion. Appropriate safety precautions for working with flammable solvents must be enforced. Alternate procedure is a vigorous soap and water wash followed by pressurized fresh water rinse. Do not use a detergent and fresh water washdown when using aluminum oxide as an abrasive blast medium.

(22) Peripheral deck edging and areas not receiving non-skid may substitute the manufacturer's color topping for MIL-PRF-24635.

(23) For non-edge retentive coatings, radiusing of edges is recommended to ensure maximum service life. If edges are not radiused, the service life could be substantially reduced.

(24) Deburring and grinding of weld spatter is recommended to ensure maximum service life. If weld spatter is not removed, the service life of the coating could be substantially reduced.

(25) Power impact tool cleaning using power-driven needle guns, chipping or scaling hammers, rotary scalers, single or multiple-piston scalers, or other similar impact cleaning tools shall not be utilized in the cleaning methods.

(26) Maintain the relative humidity in the tank or void space at a maximum of 50 percent from the start of abrasive blasting to cure of the topcoat.

(27) Finish coats for boats and craft shall be as specified in Paragraph 631-9.3.4 through 631-9.3.5 of 2.2 unless otherwise specified in the invoking Work Item.

(28) Thermal insulation shall be soap and water cleaned and hand sanded.

(29) Three coats of MIL-DTL-24441, Type III, at 3-4 mils per coat can be substituted for 2 coats of MIL-DTL-24441, Type IV, at 4-6 mils per coat, for total system DFT of 8-12 mils. Three full coats and 2 stripe coats of MIL-DTL-24441, Type III, at 3-4 mils per coat can be substituted for 2 full coats and 1 stripe coat of MIL-DTL-24441, Type IV, at 4-6 mils per coat, for total system DFT of 8-12 mils.

(30) Grit blasting to near white metal is the preferred method of surface preparation. Only where grit blasting is not possible should power tool cleaning be used. Power tool cleaning should not be used for well deck areas frequently exposed to LCAC exhaust.

(31) A low pressure (3,000 to 5,000 psi) fresh water washdown of the well deck area shall be performed before either grit blasting or power tool cleaning to remove dirt, oil, grease, salts, and loosely adherent coatings.

(32) Upon completion of surface preparation, pH measurements must be taken. The pH must be in the range of 6.5 to 7.5. If it is not, the surface must be washed with fresh water until the required pH is obtained.

(33) Runs, sags, and drips may appear in the coating due to its solvent-free nature and application properties. In the normal application of this product, the appearance of runs, sags, and drips is only superficial and is not detrimental to the coating system. In these cases, no action shall be taken. In cases where the conditions are determined to be detrimental (coating in excess of 50 mils DFT) to the effectiveness of the coating system, immediate action shall be taken. If the wet run, sag, or drip occurs on a dry surface, brush out the run, sag, or drip and reapply the prime coat directly over the brushed out area. If the run, sag, or drip has dried, then the affected area shall be scraped or mechanically removed and the prime coat shall be reapplied.

(34) These systems may also be invoked for preservation of well deck bulkheads and decks.

(35) These systems shall also be invoked for barricade stanchions and wells, catapult jet blast deflector pits, and associated void spaces.

(36) SSPC-SP-11 shall be the surface preparation method used, even if 2.4 has a more stringent requirement.

(37) Total DFT specified in Table 4 for potable water tanks shall not be exceeded except in isolated areas adjacent to shapes and stiffeners. In no case shall the maximum DFT be exceeded by 2 mils. The isolated areas shall be less than 2 percent of the total area.

a. For touch-up or overcoating intact aged paint in good condition, the same requirements for each coat apply, and the total film thickness maximum requirement may be corrected to allow for thickness of underlying aged paint. Requirement is to avoid excess thickness in individual coats. High DFT resulting from the application of extra coats of paint is not considered to be a problem below 35 mils total DFT.

(38) Maintain the relative humidity in the tank at a maximum of 85 percent from the start of abrasive blasting to cure of the topcoat. By allowing 85 percent vice 50 percent relative humidity, this will reduce the service life of the tank from 15-20 years to 10-12 years.

(39) Ameron Amercoat 892HS shall not be used for surfaces that exceed 700 degrees Fahrenheit.

(40) Avoid excessive power wire brushing that results in a polished surface.

(41) Apply 3 coats of a vapor barrier coating compound, MIL-PRF-19565, in contrasting colors (white-orange-white), to insulation within laundries, sculleries, galleys, drying rooms, and to insulation on the warm side of refrigerated stores spaces.

(42) High temperature areas of exhaust pipe exteriors include BLISS caps, air eductors, and exhaust stacks.

(43) In lieu of white, use Light Gray, Color No. 26373 (Low Solar Absorption only). In lieu of black, use Ocean Gray, Color No. 26173 (Low Solar Absorption only).

(44) These systems shall also be invoked for Aircraft Electrical Servicing Stations (AESS) trunks.

(45) PCMS tile on the bow flares shall be painted with the same topcoat as the freeboard.

(46) Intentionally left blank.

(47) The topcoats for ordnance/non-ordnance pyrotechnic locker sun shields shall be painted white (FED STD 595, Color No. 17875) or as directed by NAVSEA.

TABLE ONE STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) UP TO 3 YEARS SERVICE LIFE FOR SMALL BOATS AND SERVICE CRAFT ONLY	1	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	TWO COATS AMERON AMERCOAT 385, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTE (3)			2 COATS F-121A, 2 - 3 MILS/COAT, MIL-P-15931 SEE NOTES (2), (6), & (27)	2 COATS F-129A, 2 - 3 MILS/COAT, MIL-P-15931 SEE NOTES (2), (6), & (27)	ONE COAT MIL-PRF-24635 LT GRAY, COLOR NO. 26373 (LOW SOLAR ABSORPTION ONLY) TO BOOTTOPPING & BELOW, 2 - 3 MILS ONE COAT COLOR NO. 26173 (FED STD 595) MIL-PRF-24635 OCEAN GRAY (LOW SOLAR ABSORPTION ONLY) ABOVE BOOTTOPPING, 2 - 3 MILS
	2	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERTUF 262- KHA303/KHA062 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERTUF 262-KHA302/KHA062 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	4	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 235 RED, 4 - 6 MILS -- & -- ONE COAT AMERON AMERCOAT 235 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (3)			SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	5	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 230 RED, 4 - 6 MILS -- & -- ONE COAT AMERON AMERCOAT 230 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (3)			SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	6	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23RQ82/P23VQ80, 4 - 6 MILS -- & -- ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23AQ81/ P23VQ80, 4 - 6 MILS, 10 MILS MIN SEE NOTE (1)			SAME AS LINE ONE - OR - 2 COATS SHERWIN WILLIAMS SEAGUARD MARINE N50R100, 2 - 3 MILS/COAT SEE NOTES (2) & (6)	SAME AS LINE ONE - OR - 2 COATS SHERWIN WILLIAMS SEAGUARD MARINE N50B100, 2 - 3 MILS/COAT SEE NOTE (2) & (6)	SAME AS LINE ONE
	7	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA327 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			ONE COAT INTERSLEEK 381 LIGHT PINK, BXA380/BXA381, 3 - 5 MILS -- & -- ONE COAT INTERSLEEK 425 HAZE GRAY, BXA816/ BXA821/ BXA822 OR BLACK, BXA819/ BXA821/ BXA822, 5 - 7 MILS SEE NOTES (2) & (6)	SAME AS LINE ONE	SAME AS LINE ONE

TABLE ONE STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) UP TO 7 YEARS SERVICE LIFE	8	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			ONE COAT INTERNATIONAL BRA 642 BLACK, ONE COAT BRA 640 RED, (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS INTERNATIONAL BRA 642 BLACK, (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	9	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERTUF 262-KHA303/KHA062 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERTUF 262-KHA302/KHA062 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			ONE COAT INTERNATIONAL BRA 642 BLACK, ONE COAT BRA 640 RED (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS INTERNATIONAL BRA 642 BLACK, (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	10	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 235 RED, 4 - 6 MILS -- & -- ONE COAT AMERON AMERCOAT 235 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (3)			ONE COAT AMERON ABC 3 BLACK, ONE COAT AMERON ABC 3 RED (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS AMERON ABC 3 BLACK (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	11	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 230 RED, 4 - 6 MILS -- & -- ONE COAT AMERON AMERCOAT 230 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (3)			ONE COAT AMERON ABC 3 BLACK, ONE COAT AMERON ABC 3 RED (MIL-PRF-24647), 4 - 6 MILS /COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS AMERON ABC 3 BLACK (MIL-PRF-24647), 4 - 6 MILS /COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	12	SAME AS LINE ONE	ONE COAT HEMPEL HEMPADUR 4150-50630 RED, 4 - 6 MILS -- & -- ONE COAT HEMPEL HEMPADUR 45150-11480 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (5)			ONE COAT HEMPEL OLYMPIC 76600-19990 BLACK (MIL-PRF-24647), ONE COAT OLYMPIC 76600-51110 RED (MIL-PRF-24647), 4 - 6 MILS /COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS HEMPEL OLYMPIC 76600-19990 BLACK, (MIL-PRF-24647), 4 - 6 MILS /COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	13	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23RQ82/P23VQ80, 4 - 6 MILS -- & -- ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23AQ81/P23VQ80, 4 - 6 MILS, 10 MILS MIN SEE NOTE (1)			ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 -- & -- ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30RQ10 (MIL-PRF-24647), 4 - 6 MILS /COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN	SAME AS LINE ONE

TABLE ONE STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) UP TO 12 YEARS SERVICE LIFE	14	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			ONE COAT INTERNATIONAL BRA 640 RED, ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS INTERNATIONAL BRA 642 BLACK (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	15	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERTUF 262-KHA303/KHA062 RED, 4 - 6 MILS -- & -- ONE COAT INTERNATIONAL INTERTUF 262-KHA302/KHA062 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (4)			ONE COAT INTERNATIONAL BRA 640 RED, ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS INTERNATIONAL BRA 642 BLACK (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	16	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 235 RED, 4 - 6 MILS -- & -- ONE COAT AMERON AMERCOAT 235 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (3)			ONE COAT AMERON ABC 3 RED, ONE COAT AMERON ABC 3 BLACK, ONE COAT AMERON ABC 3 RED (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS AMERON ABC 3 BLACK (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	17	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 230 RED, 4 - 6 MILS -- & -- ONE COAT AMERON AMERCOAT 230 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (3)			ONE COAT AMERON ABC 3 RED, ONE COAT AMERON ABC 3 BLACK, ONE COAT AMERON ABC 3 RED (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS AMERON ABC 3 BLACK (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	18	SAME AS LINE ONE	ONE COAT HEMPEL HEMPADUR 45150-50630 RED, 4 - 6 MILS -- & -- ONE COAT HEMPEL HEMPADUR 45150-11480 GRAY, 4 - 6 MILS, 10 MILS MIN SEE NOTE (5)			ONE COAT HEMPEL OLYMPIC 76600-51110 RED (MIL-PRF-24647), ONE COAT OLYMPIC 76600-19990 BLACK (MIL-PRF-24647), ONE COAT OLYMPIC 76600-51110 RED (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS HEMPEL OLYMPIC 76600-19990 BLACK (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE
	19	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23RQ82/P23VQ80, 4 - 6 MILS -- & -- ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23AQ81/P23VQ80, 4 - 6 MILS, 10 MILS MIN SEE NOTE (1)			ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30RQ10, ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 -- & -- ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30RQ10 (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE ONE

TABLE ONE STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (STRUTS, RUDDERS, & OTHER ***EROSION*** PRONE AREAS)	20	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 235 RED, 4 - 6 MILS SEE NOTE (3)	ONE COAT AMERON AMERCOAT 235 GRAY, 4 - 6 MILS SEE NOTE (3)	ONE COAT 3M CO. NO. EC-2216, 4 - 5 MILS --- & --- 3 COATS, 5 - 6 MILS/COAT	ANTIFOULING PAINT SAME AS SURROUNDING HULL SEE NOTES (2) & (6)		
	21	SAME AS LINE ONE	ONE COAT AMERON AMERCOAT 230 RED, 4 - 6 MILS SEE NOTE (3)	ONE COAT AMERON AMERCOAT 230 GRAY, 4 - 6 MILS SEE NOTE (3)	SAME AS LINE 20	SAME AS LINE 20		
	22	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, 4 - 6 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327, 4 - 6 MILS SEE NOTE (4)	SAME AS LINE 20	SAME AS LINE 20		
	23	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERTUF 262-KHA303/KHA062 RED, 4 - 6 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL INTERTUF 262-KHA302/KHA062 GRAY, 4 - 6 MILS SEE NOTE (5)	SAME AS LINE 20	SAME AS LINE 20		
	24	SAME AS LINE ONE	ONE COAT HEMPEL HEMPADUR 45150-50630 RED, 4 - 6 MILS SEE NOTE (5)	ONE COAT HEMPEL HEMPADUR 45150-11480 GRAY, 4 - 6 MILS SEE NOTE (5)	SAME AS LINE 20	SAME AS LINE 20		
	25	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23RQ82/P23VQ80, 4 - 6 MILS SEE NOTE (1)	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23AQ81/P23VQ80, 4 - 6 MILS SEE NOTE (1)	SAME AS LINE 20	SAME AS LINE 20		
UNDERWATER HULL (CAPASTIC SHIELDS) SEE NOTES (10) & (11)	26	WHITE METAL BLAST, NACE 1/SSPC-SP-5	INNER SHIELD: ONE COAT US FILTER, ELECTROCATALYTIC, CAPASTIC™, PART NO. 35524, 100 MILS MIN OUTER SHIELD: ONE COAT US FILTER, ELECTROCATALYTIC, CAPASTIC™, PART NO. 35524, 22 MILS MIN	ANTICORROSIVE PAINT SAME AS SURROUNDING HULL		ANTIFOULING PAINT SAME AS SURROUNDING HULL SEE NOTES (2) & (6)		

TABLE ONE ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS)	27	NEAR WHITE METAL BLAST USING GARNET OR ALUMINUM OXIDE OR BLACK WALNUT SHELLS - OR - WATERJETTING TO NACE 5/ SSPC-SP-12 CONDITION WJ-2	ONE COAT INTERNATIONAL INTERGARD 264 FPL 274/FPA 327 RED, 4 - 6 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (4)	ONE COAT INTERNATIONAL INTERGARD 264-FPJ 034/FPA 327 GRAY, 4 - 6 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL INTERSLEEK 381 BXA380/BXA 381 LIGHT PINK, 3 - 5 MILS	ONE COAT INTERNATIONAL INTERSLEEK 425 BXA 816/BXA 821/BXA 822 HAZE GRAY, 5 - 7 MILS SEE NOTES (2) & (6)	ONE COAT INTERNATIONAL INTERSLEEK 425 BXA 816/BXA 821/BXA 822 HAZE GRAY, 5 - 7 MILS SEE NOTES (2) & (6)	ONE COAT INTERNATIONAL INTERSLEEK 425 BXA 819/BXA 821/BXA 822 BLACK, 5 - 7 MILS
UNDERWATER HULL APPLIES TO EMBARKED BOATS AND CRAFT ONLY	28	SAME AS LINE 27	ONE COAT E-PAINT EP PRIMER 1000, 4 - 6 MILS	ONE COAT E-PAINT EP PRIMER 1000, 4 - 6 MILS	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3-4 MILS DFT/COAT) GRAY ---- & ---- ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) BLACK	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 -4 MILS DFT/COAT) GRAY SEE NOTES (2) & (6)	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) GRAY SEE NOTES (2) & (6)	ONE COAT E-PAINT SN-1, 5 - 7 MILS WFT/COAT (3 - 4 MILS DFT/COAT) BLACK
UNDERWATER HULL (STRUTS, RUDDERS & OTHER ***EROSION*** PRONE AREAS)	29	SAME AS LINE 27	ONE COAT INTERNATIONAL FPL 274/FPA 327, 4 - 6 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (4)	ONE COAT 3M CO. NO. EC-2216, 4 - 5 MILS -- & -- 3 COATS, 5 - 6 MILS/COAT		ANTI-FOULING PAINT SAME AS SURROUNDING HULL SEE NOTES (2) & (6)		
	30	SAME AS LINE 27	ONE COAT AMERON AMERCOAT 235 RED, 4 - 6 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (3)	SAME AS LINE 29		SAME AS LINE 29		

TABLE ONE GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) UP TO 7 YEARS SERVICE LIFE	31	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT - OR - TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS -- & -- SPOT CLEAN, CHAP 631, PARA 631-5.2.6 SEE NOTE (21)	ONE COAT INTERNATIONAL FPL 274/FPA 327, 4 - 6 MILS - OR - INTERTUF 262-KHA303/KHA062, 4 - 6 MILS SEE NOTE (4)			ONE COAT INTERNATIONAL BRA 642 BLACK, ONE COAT BRA 640 RED, 4 - 6 MILS/ COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS INTERNATIONAL BRA 642 BLACK, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	ONE COAT MIL-PRF-24635 LT GRAY, COLOR NO. 26373 (LOW SOLAR ABSORPTION ONLY) TO BOOTTOPPING & BELOW, 2 - 3 MILS ONE COAT COLOR NO. 26173 (FED STD 595) MIL-PRF-24635 OCEAN GRAY (LOW SOLAR ABSORPTION ONLY) ABOVE BOOTTOPPING, 2 - 3 MILS
	32	SAME AS LINE 31	ONE COAT AMERON AMERCOAT 235, 4 - 6 MILS - OR - ONE COAT AMERON AMERCOAT 230 RED, 4 - 6 MILS SEE NOTE (3)			ONE COAT AMERON ABC3 BLACK, ONE COAT AMERON ABC3 RED, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS AMERON ABC3 BLACK, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE 31
	33	SAME AS LINE 31	ONE COAT HEMPEL HEMPADUR 45150-50630 RED, 4 - 6 MILS SEE NOTE (5)			ONE COAT HEMPEL OLYMPIC 76600-19990 BLACK -- & -- ONE COAT HEMPEL OLYMPIC 76600-51110 RED, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS HEMPEL OLYMPIC 76600-19990 BLACK, 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE 31
	34	SAME AS LINE 31	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23RQ82/P23VQ80, 4 - 6 MILS SEE NOTE (1)			ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 -- & -- ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30RQ10 (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	2 COATS SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 (MIL-PRF-24647), 4 - 6 MILS/COAT, 10 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE 31

TABLE ONE GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) UP TO 12 YEARS SERVICE LIFE	35	SAME AS LINE 31	ONE COAT INTERNATIONAL FPL 274/FPA 327, 4 - 6 MILS - OR - INTERTUF 262- KHA303/KHA062, 4 - 6 MILS SEE NOTE (4)			ONE COAT INTERNATIONAL BRA 640 RED, ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS INTERNATIONAL BRA 642 BLACK, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE 31
	36	SAME AS LINE 31	ONE COAT AMERON AMERCOAT 235, 4 - 6 MILS - OR - ONE COAT AMERON AMERCOAT 230 RED, 4 - 6 MILS SEE NOTE (3)			ONE COAT AMERON ABC3 RED, ONE COAT AMERON ABC3 BLACK, ONE COAT AMERON ABC3 RED, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS AMERON ABC3 BLACK, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE 31
	37	SAME AS LINE 31	ONE COAT HEMPEL HEMPADUR 45150-50630 RED, 4 - 6 MILS SEE NOTE (5)			ONE COAT HEMPEL OLYMPIC 76600-51110 RED -- & -- ONE COAT HEMPEL OLYMPIC 76600-19990 BLACK -- & -- ONE COAT HEMPEL OLYMPIC 76600-51110 RED, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS HEMPEL OLYMPIC 76600-19990 BLACK, 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE 31
	38	SAME AS LINE 31	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23RQ82/P23VQ80, 4 - 6 MILS SEE NOTE (1)			ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30RQ10, ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 -- & -- ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P30RQ10 (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	3 COATS SHERWIN WILLIAMS SEAGUARD MARINE P30BQ12 (MIL-PRF-24647), 4 - 6 MILS/COAT, 15 MILS MIN SEE NOTES (2) & (6)	SAME AS LINE 31

TABLE ONE GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL METAL APPENDAGES (STRUTS, RUDDERS & OTHER ***EROSION*** PRONE AREAS) 5 TO 10 YEARS SERVICE LIFE	39	NEAR WHITE METAL BLAST USING GARNET OR ALUMINUM OXIDE - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2	ONE COAT INTERNATIONAL FPL 274/FPA 327, 4 - 6 MILS SEE NOTE (4)	ONE COAT 3M CO. NO. EC-2216, 4 - 5 MILS ---- & ---- 3 COATS, 5 - 6 MILS/COAT		SAME AS LINE 35		
	40	SAME AS LINE 39	ONE COAT AMERON AMERCOAT 235, 4 - 6 MILS SEE NOTE (3)	SAME AS LINE 39		SAME AS LINE 36		
	41	SAME AS LINE 39	ONE COAT HEMPEL HEMPADUR 45150-50630 RED, 4 - 6 MILS SEE NOTE (5)	SAME AS LINE 39		SAME AS LINE 37		
	42	SAME AS LINE 39	ONE COAT SHERWIN WILLIAMS SEAGUARD MARINE P23RQ82/P23VQ80, 4 - 6 MILS SEE NOTE (1)	SAME AS LINE 39		SAME AS LINE 38		
UNDERWATER HULL APPENDAGES ON MINESWEEPERS ONLY	43	SAME AS LINE 30	ONE FULL COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS ---- & ---- ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS ---- & ---- ONE FULL COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS ---- & ---- ONE STRIPE COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS ---- & ---- ONE FULL COAT MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE FULL COAT AMERON 3258 GREEN, 3 - 5 MILS --- & --- ONE STRIPE COAT AMERON 3258 BLACK, 3 - 5 MILS --- & --- ONE FULL COAT AMERON 3258 HAZE GRAY, 3 - 5 MILS --- & --- ONE STRIPE COAT AMERON 3258 GREEN, 3 - 5 MILS --- & --- ONE FULL COAT AMERON 3258 BLACK, 3 - 5 MILS	ANTI-FOULING PAINT SAME AS SURROUNDING HULL SEE NOTES (2) & (6)			

TABLE ONE WOOD SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL	44	BRUSH-OFF BLAST TO REMOVE LOOSE & DETERIORATED COATINGS - OR - HIGH-PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT SEE NOTE (20)	KEEL TO 6 INCHES ABOVE UPPER BOOTTOP LIMIT ONE COAT F-150, MIL-DTL-24441, TYPE IV, 4 - 6 MILS			2 COATS F-121A, MIL-P-15931, 2 - 3 MILS EACH COAT, TO UNDERWATER HULL, APPENDAGES, SEA CHESTS & STRAINER PLATES UP TO BOTTOM OF BOOTTOPPING AREA MIN DRYING TIME OF 6 HRS BETWEEN COATS OF F-121A PUTTY SCREW HEADS, WHERE COMPOUND IS MISSING, WITH CAULKING COMPOUND CONFORMING TO TT-C-1796 AFTER FIRST COAT OF F-121A SEE NOTES (2), (6), & (27)	3 COATS F-129A, MIL-P-15931, 2 - 3 MILS/ COAT MIN DRYING TIME OF 6 HRS BETWEEN COATS OF F-129A SEE NOTES (2), (6), & (27)	ONE COAT NO. 26373 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) LT GRAY, TO BOOTTOPPING & BELOW, 2 - 3 MILS ONE COAT NO. 26173 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) OCEAN GRAY, ABOVE BOOTTOPPING, 2 - 3 MILS SEE NOTE (6)

TABLE 2 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR SURFACES ABOVE BOOTTOP WITH EXCEPTION OF AREAS RECEIVING NON-SKID & WELL DECK OVERHEAD AREAS SEE NOTE (2)	1	NEAR WHITE METAL BLAST NACE 2/SSPC-SP-10 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	ONE COAT MIL-PRF-23236, 3 - 5 MILS - OR - ONE COAT MIL-PRF-24647 APPROVED PRODUCT FROM TABLE ONE, LINES 14-19	ONE STRIPE COAT -- & -- ONE FULL COAT MIL-PRF-23236, 3 - 5 MILS - OR - ONE STRIPE COAT -- & -- ONE FULL COAT MIL-PRF-24647 APPROVED PRODUCT FROM TABLE ONE, LINES 14-19		ONE COAT DECK GRAY NO.26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS - OR - INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - NILES CHEMICAL PAINT CO. PRODUCT N-7229C, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - AMERON AMERCOAT 7229C, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - HEMPEL 537US, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS SEE NOTE (42)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - NILES CHEMICAL PAINT CO. PRODUCT N-7229C, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - AMERON AMERCOAT 7229C, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - HEMPEL 537US, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS SEE NOTE (43) & (47)
HANGAR DECKS, FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS (CV'S & CVN'S ONLY)	2	NEAR WHILE METAL BLAST, NACE 2/SSPC-SP-10 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	STRIPE COAT OF PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)		ONE COAT DARK GRAY, MIL-PRF-24667 TYPE I, COMP G SEE NOTES (19) & (22)		
HANGAR DECKS, FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS	3	SAME AS LINE 2	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	STRIPE COAT OF PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	SAME AS LINE 2		
LANDING AREAS (CV'S & CVN'S ONLY)	4	SAME AS LINE 2	SAME AS LINE 2	SAME AS LINE 2		ONE COAT DARK GRAY, MIL-PRF-24667, TYPE I, COMP L SEE NOTES (19) & (22)		
WALK AREAS (ALL DECK AREAS OTHER THAN HANGAR, FLIGHT, & VERTREP)	5	SAME AS LINE 2	SAME AS LINE 3	SAME AS LINE 3	SAME AS LINE 3	ONE COAT MIL-PRF-24667, TYPE I, II, OR III, COMP G - OR - ONE COAT MIL-PRF-24667, TYPE IV SEE NOTES (19) & (22)		

TABLE 2 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
RAST TRACK TROUGHS WHERE PAINTED (WHERE NON-SKID NOT APPLIED)	6	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE COAT INTERNATIONAL INTERBOND 998, DECK GRAY, 6 - 8 MILS			
	7	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS			
WELL DECK OVERHEADS, BOTH EXPOSED & NON-EXPOSED TO LCAC EXHAUST SEE NOTES (30) & (34)	8	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (31)	ONE COAT CREAM SIGMA COATINGS EDGEGUARD PRIMER (PDS NO.5427), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT WD GRAY SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO.5428), 6 - 10 MILS SEE NOTE (33)	ONE COAT OFF-WHITE SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10 - 12 MILS SEE NOTE (33)			
	9	SAME AS LINE 8	ONE COAT BUFF SHERWIN WILLIAMS NOVA-PLATE UHS PRIMER (B62H220/B62V220), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT GRAY SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62A220/B62V220), 6 - 10 MILS SEE NOTE (33)	ONE COAT WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62W220/B62V220), 10 - 12 MILS SEE NOTE (33)			
	10	SAME AS LINE 8	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS ***SEE NOTE (33)***	ONE STRIPE COAT INTERNATIONAL INTERLINE 624 GRAY (THA625/627), 6 - 10 MILS ***SEE NOTE (33)***	ONE COAT INTERNATIONAL INTERLINE 624 WHITE (THA623/627), 10 - 12 MILS ***SEE NOTE (33)***			
	11	SAME AS LINE 8	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 19, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 19, 6 - 10 MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 19, 10 - 12 MILS SEE NOTE (33)			
EXTERIOR STEEL SURFACES	12	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE (40)	SAME AS LINE ONE	SAME AS LINE ONE		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	13	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L	SAME AS LINE ONE	SAME AS LINE ONE		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	14	SAME AS LINE 8	SAME AS LINE ONE	SAME AS LINE ONE		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE

TABLE 2 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR SURFACES ABOVE BOOTTOP, WITH EXCEPTION OF AREAS RECEIVING NON-SKID SEE NOTE (2)	15	ABRASIVE BLASTING, USING GARNET, ALUMINUM OXIDE, OR BLACK WALNUT SHELLS -- & -- SPOT CLEANING, CHAP 631, PARA 631-5.2.4.3 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 SEE NOTE (21)	ONE COAT MIL-PRF-23236, 3 - 5 MILS	ONE STRIPE COAT MIL-PRF-23236, 3 - 5 MILS	ONE FULL COAT MIL-PRF-23236, 3 - 5 MILS	ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS SEE NOTE (47)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS - OR - INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - NILES CHEMICAL PAINT CO. PRODUCT N-7229C, HAZE GRAY (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - AMERON AMERCOAT 7229C, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - HEMPEL 537US, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS SEE NOTE (42)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - NILES CHEMICAL PAINT CO. PRODUCT N-7229C, HAZE GRAY (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - AMERON AMERCOAT 7229C, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - HEMPEL 537US, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS SEE NOTES (43) & (47)
	16	SAME AS LINE 15		2 COATS F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT		SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15
WALK AREAS ALL DECK AREAS OTHER THAN HANGAR, FLIGHT & VERTICAL REPLENISHMENT DECK AREAS	17	NEAR WHITE BLAST, NACE 2/SSPC-SP-10, USING GARNET, ALUMINUM OXIDE OR BLACK WALNUT SHELLS - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 SEE NOTE (21)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	STRIPE COAT OF PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)	ONE COAT MIL-PRF-24667 TYPE I, II, OR III, COMP G - OR - ONE COAT MIL-PRF-24667 TYPE IV SEE NOTE (19) & (22)		
HANGAR DECKS, FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS CV & CVN ONLY	18	SAME AS LINE 17	SAME AS LINE 17	SAME AS LINE 17		ONE COAT DARK GRAY, MIL-PRF-24667 TYPE I, COMP G SEE NOTES (19) & (22)		
HANGAR DECKS, FLIGHT DECKS, & VERTICAL REPLENISHMENT DECK AREAS	19	SAME AS LINE 17	SAME AS LINE 17	SAME AS LINE 17	SAME AS LINE 17	SAME AS LINE 18		

TABLE 2 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
RAST TRACK TROUGHS WHERE PAINTED (WHERE NON-SKID NOT APPLIED	20	NEAR WHITE BLAST, NACE 2/SSPC-SP-10, USING GARNET, ALUMINUM OXIDE OR BLACK WALNUT SHELLS - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 SEE NOTE (21)	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE COAT INTERNATIONAL INTERBOND 998, DECK GRAY, 6 - 8 MILS			
	21	SAME AS LINE 20	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS			
EXTERIOR ALUMINUM SURFACES	22	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE (40)	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15
	23	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15	SAME AS LINE 15

TABLE 2 GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR SURFACES ABOVE BOOTTOP SEE NOTE (2)	24	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT - OR - TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS -- & -- SPOT CLEAN, CHAP 631, PARA 631-5.2.6 SEE NOTE (21)	ONE COAT F-150, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTE (29)		ONE STRIPE COAT F-152, MIL-DTL-24441, TYPE IV, 4 - 6 MILS -- & -- ONE COAT F-151, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTE (29)	ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS - OR - HEMPEL 537US, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS SEE NOTE (42)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - MIL-PRF-24763 TYPE II, CLASS 2, 2 - 4 MILS - OR - NILES CHEMICAL PAINT CO. PRODUCT N-7229C HAZE GRAY (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - AMERON AMERCOAT 7229C HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - HEMPEL 537US, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS SEE NOTE (43)
EXTERIOR WALK AREAS ALL EXTERIOR DECK AREAS	25	POWER TOOL CLEAN TO CLEAN FIBERGLASS (DISC SANDER, ETC.) - OR - POWER TOOL CLEAN TO POLYURETHANE OVERLAY SUBSTRATE (DISC SANDER, ETC.) - OR - HYDROBLAST TO CLEAN FIBERGLASS SEE NOTE (25)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)			ONE COAT MIL-PRF-24667 TYPE I, II, OR III, COMP G - OR - MIL-PRF-24667 TYPE IV SEE NOTES (19) & (22)		

TABLE 2 WOOD SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
EXTERIOR ABOVE BOOTTOPPING	26	HAND TOOL CLEAN - OR - POWER TOOL CLEAN TO REMOVE DETERIORATED COATINGS	ONE COAT F-150, MIL-DTL-24441, TYPE IV, 4 - 6 MILS	DECKS, MASTS & SPARS: ONE COAT NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	ALL OTHER SURFACES: ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS			IDENTIFICATION MARKINGS: PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - INTERNATIONAL INTERLAC 1, PRODUCT #45587A HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - NILES CHEMICAL PAINT CO. PRODUCT N-7229C HAZE GRAY (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS - OR - AMERON AMERCOAT 7229C HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS - OR - HEMPEL 537US, HAZE GRAY (LOW SOLAR ABSORPTION ANTI-STAIN), 2 - 3 MILS SEE NOTE (43)

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	1	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTES (17), (28) & (40)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, 3 - 5 MILS	BHDS, OVHDS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS DECKS ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A, WATER-BASED FIRE RETARDANT COATING, 2 - 4 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595) MIL-PRF-24635, 2 - 3 MILS (TO DECKS NOT RECEIVING COVERING)	HULL, VENTILATION & PIPING INSULATION 2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A, WATER-BASED FIRE RETARDANT COATING, 2 - 4 MILS/COAT SEE NOTES (9), (28), & (41)	FOR COMPARTMENT PIPING & VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, 3 - 5 MILS	SAME AS LINE ONE	2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	3	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTES (28) & (40)	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT		SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	4	POWER TOOL CLEANING TO BARE METAL, SSPC-SP-11 SEE NOTES (28) & (40)	ONE COAT SIGMAGLAZE 5492, WHITE ONLY, 8-10 MILS		ONE STRIPE COAT SIGMAGLAZE 5492, 8-10 MILS , -- & -- ONE FULL COAT, 8-10 MILS, WHITE ONLY		SAME AS LINE ONE	SAME AS LINE ONE
	5	SAME AS LINE 4	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 6 - 10 MILS -- & -- ONE FINAL COAT, 10 - 12 MILS	ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT, 6 - 8 MILS	SAME AS LINE ONE	SAME AS LINE ONE
	6	SAME AS LINE 4	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		SAME AS LINE 5	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT, 6 - 8 MILS	SAME AS LINE ONE	SAME AS LINE ONE
	7	SAME AS LINE 4	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		SAME AS LINE 5	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE FINAL COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	SAME AS LINE ONE	SAME AS LINE ONE

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	8	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTES (17), (28) & (40)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, 3 - 5 MILS	BHDS, OVHDS, ONE COAT NO.37038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS DECKS ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A, WATER-BASED FIRE RETARDANT COATING, 2 - 4 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595) MIL-PRF-24635, 2 - 3 MILS (TO DECKS NOT RECEIVING COVERING)	SAME AS LINE ONE	SAME AS LINE ONE
	9	SAME AS LINE 8	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, 3 - 5 MILS	SAME AS LINE ONE	2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	10	POWER TOOL CLEANING, SSPC-SP-3	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT		SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT
MACHINERY SPACES & BILGES SEE NOTE (44)	11	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L - OR - NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTES (28) & (40)	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ABOVE BILGE AREA: 2 COATS F-124, DOD-E-24607, 1.5 - 3 MILS/COAT	BILGE AREA: ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS	SAME AS LINE ONE	
	12	SAME AS LINE 11	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		SAME AS LINE 11	BILGE AREA: ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	SAME AS LINE ONE	
	13	SAME AS LINE 11	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		SAME AS LINE 11	BILGE AREA: ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	SAME AS LINE ONE	
	14	***NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10*** ***SEE NOTES (28) & (40)***	***ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS***		***SAME AS LINE 11***	***BILGE AREA:*** ***ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS*** ***-- & --*** ***ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS***	***SAME AS LINE ONE***	

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTAKE VENT PLENUMS BETWEEN SKIN OF SHIP & MOISTURE SEPARATORS	***15***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT SIGMA COATINGS EDGEGUARD PRIMER (PDS NO. 5427), 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SIGMA EDGEGUARD (PDS NO. 5428), 6 - 10 MILS -- & -- ONE FULL COAT SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMA EDGEGUARD (PDS NO. 5428), 6 - 10 MILS -- & -- ONE FULL COAT SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10 - 12 MILS SEE NOTE (33)		
	16	SAME AS LINE ***15***	ONE COAT BUFF SHERWIN WILLIAMS NOVA-PLATE UHS PRIMER (B62H220/B62V220), 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 6 - 10 MILS -- & -- ONE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62A220/B62V220), 6 - 10 MILS -- & -- ONE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 10 - 12 MILS SEE NOTE (33)		
	17	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L -OR- NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS ***SEE NOTE (33)***	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS ***SEE NOTE (33)***		
	18	SAME AS LINE ***15***	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)		
	19	SAME AS LINE ***15***	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT INTERNATIONAL INTERLINE 624, 6 - 10 MILS -- & -- ONE COAT INTERNATIONAL INTERLINE 624, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT INTERNATIONAL INTERLINE 624, 6 - 10 MILS -- & -- ONE COAT INTERNATIONAL INTERLINE 624, 10 - 12 MILS SEE NOTE (33)		
	20	SAME AS LINE ***15***	ONE COAT SHERWIN WILLIAMS DURAPLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)		

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTAKE VENT PLENUMS BETWEEN SKIN OF SHIP & MOISTURE SEPARATORS (CON'T)	***21***	SAME AS LINE ***15***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT MI-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)		
	22	SAME AS LINE ***17***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
CLEAN AND DIRTY SIDE OF COMBUSTION AIR INTAKES	***23***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)		
	24	SAME AS LINE ***23***	ONE COAT SHERWIN WILLIAMS DURAPLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)		
	25	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2/L - OR - NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		
	26	SAME AS LINE ***25***	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS	ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS		
	27	SAME AS LINE ***25***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
CLEAN AND DIRTY SIDE OF COMBUSTION AIR INTAKES (CON'T)	***28***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		
	29	SAME AS LINE ***28***	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS	ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS		
	30	SAME AS LINE ***28***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
FAN ROOMS	***31***	SAME AS LINE 11	SAME AS LINE ***28, 29, or 30***		SAME AS LINE ***28, 29, or 30***	SAME AS LINE ***28, 29, or 30***		
MIXING ROOM/UPTAKE SPACES WITH VENTS OR LOUVERS TO THE OUTSIDE ATMOSPHERE (BULKHEADS & DECKS)	***32***	NEAR WHITE METAL BLAST NACE 2/SSPC-SP-10	ONE COAT SIGMA COATINGS EDGEGUARD PRIMER, 4 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***	ONE STRIPE COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***		
	33	SAME AS LINE ***32***	ONE COAT SHERWIN WILLIAMS NOVA-PLATE UHS PRIMER, 4 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***	ONE STRIPE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***		
	34	SAME AS LINE ***32***	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT INTERNATIONAL INTERLINE 624, 6 - 10 MILS -- & -- ONE FULL COAT INTERNATIONAL INTERLINE 624, 10 - 12 MILS ***SEE NOTE (33)***	ONE STRIPE COAT INTERNATIONAL INTERLINE 624, 6 - 10 MILS -- & -- ONE FULL COAT INTERNATIONAL INTERLINE 624, 10 - 12 MILS ***SEE NOTE (33)***		
	35	SAME AS LINE ***32***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)		

TABLE 3 STEEL SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
DECKS, INSIDE THE COAMING, UNDER AFFF PROPORTIONING UNITS, & BILGE DRAIN WELLS	***36***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE (32) & (36)	ONE COAT BELZONA CERAMIC METAL 4311, 12 - 18 MILS			ONE COAT BELZONA CERAMIC METAL 4311, 12 - 18 MILS		
	37	SAME AS LINE ***36***	ONE COAT CHESTERTON ARC 855N, 12 - 18 MILS			ONE COAT CHESTERTON ARC 855N, 12 - 18 MILS		
	38	SAME AS LINE ***36***	ONE COAT ENECON CORPORATION CERAMALLOY CL+ [AC], 12 - 18 MILS			ONE COAT ENECON CORPORATION CERAMALLOY CL+ [AC], 12 - 18 MILS		
INTERIOR STEEL SURFACES	***39***	SAME AS LINE ***15***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	40	SAME AS LINE ***17***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	41	SAME AS LINE ***28***	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS SEE NOTE (17)	***42***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11, USING STAINLESS STEEL WIRE BRUSHES, STAINLESS STEEL PADS, OR ABRASIVE SANDING DISCS (ANSI/BHMA B74.18)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, 3 - 5 MILS	BHDS, OVHDS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS DECKS ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT - OR - 2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A, WATER-BASED FIRE RETARDANT COATING, 2 - 4 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS (TO DECKS NOT RECEIVING DECK COVERING)	HULL, VENTILATION & PIPING INSULATION 2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT - OR - 2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A, WATER-BASED FIRE RETARDANT COATING, 2 - 4 MILS/COAT SEE NOTES (9), (28), & (41)	FOR COMPARTMENT PIPING & VENTILATION SEE NOTE (18)
	43	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTES (28) & (40)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT - OR - ONE COAT MIL-PRF-23236, 3 - 5 MILS	SAME AS LINE ***42***	2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A, WATER-BASED FIRE RETARDANT COATING, 2 - 4 MILS/COAT - OR - 2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595) MIL-PRF-24635, 2 - 3 MILS (TO DECKS NOT RECEIVING COVERING)	SAME AS LINE ***42***	FOR COMP'T PIPING VENTILATION SEE NOTE (18)
INTERIOR COMPARTMENTS (OVERCOAT)	***44***	HAND TOOL CLEANING, SSPC-SP-2 SEE NOTE (28) & (40)	SAME AS LINE ***42*** FOR BARE METAL AREAS	SAME AS LINE ***42***	SAME AS LINE ***42*** EXCEPT ONE COAT		SAME AS LINE ***42*** EXCEPT ONE COAT	SAME AS LINE ***42***
	45	POWER TOOL CLEANING, SSPC-SP-3	SAME AS LINE ***42*** FOR BARE METAL AREAS	SAME AS LINE ***42***	SAME AS LINE ***42*** EXCEPT ONE COAT		SAME AS LINE ***42*** EXCEPT ONE COAT	SAME AS LINE ***42***

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	***46***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTES (28) & (40)	ONE COAT SIGMA GLAZE 5492, 8-10 MILS, WHITE ONLY		ONE STRIPE COAT SIGMA 5492, 8-10 MILS -- & -- ONE FULL COAT, 8-10 MILS, WHITE ONLY		SAME AS LINE ***42***	SAME AS LINE ***42***
	47	SAME AS LINE ***46***	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 6 - 10 MILS -- & -- ONE FINAL COAT, 10 - 12 MILS	ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT, 6 - 8 MILS	SAME AS LINE ***42***	SAME AS LINE ***42***
	48	SAME AS LINE ***46***	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		SAME AS LINE ***47***	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT, 6 - 8 MILS	SAME AS LINE ***42***	SAME AS LINE ***42***
	49	SAME AS LINE ***46***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		SAME AS LINE ***47***	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE FINAL COAT, MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS	SAME AS LINE ***42***	SAME AS LINE ***42***

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
MACHINERY SPACES & BILGES	***50***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 - OR - WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 - OR - NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (28)	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ABOVE BILGE AREA: 2 COATS F-124, DOD-E-24607, 1.5 - 3 MILS/COAT	BILGE AREA: ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS	SAME AS LINE ***42***	
	51	SAME AS LINE ***50***	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		SAME AS LINE ***50***	BILGE AREA: ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	SAME AS LINE ***42***	
	52	SAME AS LINE ***50***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS		SAME AS LINE ***50***	BILGE AREA: ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 17, 6 - 8 MILS	SAME AS LINE ***42***	
	53	***NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10*** ***SEE NOTES (28) & (40)***	***ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS***		***SAME AS LINE 50***	***BILGE AREA:*** ***ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS*** ***-- & --*** ***ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS***	***SAME AS LINE 42***	

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTAKE VENT PLENUMS, BETWEEN SKIN OF SHIP & MOISTURE SEPARATORS	***54***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT CREAM SIGMA COATINGS EDGEGUARD PRIMER (PDS NO. 5427), 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT WD GRAY SIGMA EDGEGUARD TOP COAT (PDS NO. 5428), 6 - 10 MILS -- & -- ONE COAT OFF-WHITE SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT WD GRAY SIGMA EDGEGUARD TOP COAT (PDS NO. 5428), 6 - 10 MILS -- & -- ONE COAT OFF-WHITE SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO. 5428), 10 - 12 MILS SEE NOTE (33)		
	55	SAME AS LINE ***54***	ONE COAT BUFF SHERWIN WILLIAMS NOVA-PLATE UHS PRIMER (B62H220/B62V220), 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT GRAY SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62A220/B62V220), 6 - 10 MILS -- & -- ONE COAT WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62W220/B62V220), 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT GRAY SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62A220/B62V220), 6 - 10 MILS -- & -- ONE COAT WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62W220/B62V220), 10 - 12 MILS SEE NOTE (33)		
	56	SAME AS LINE ***54***	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT INTERNATIONAL INTERLINE 624 (THA624/627) WHITE, 6 - 10 MILS -- & -- ONE COAT INTERNATIONAL INTERLINE 624 (THA625/627) GRAY, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT INTERNATIONAL INTERLINE 624 (THA624/627) WHITE, 6 - 10 MILS -- & -- ONE COAT INTERNATIONAL INTERLINE 624 (THA625/627) GRAY, 10 - 12 MILS SEE NOTE (33)		
	57	SAME AS LINE ***54***	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, AMBER, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-5000, GRAY, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-5000, GRAY, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)		
	58	SAME AS LINE ***54***	ONE COAT SHERWIN WILLIAMS DURAPLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)		
	59	SAME AS LINE ***54***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE 7, CLASS 5, 10 - 12 MILS SEE NOTE (33)		

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTAKE VENT PLENUMS, BETWEEN SKIN OF SHIP & MOISTURE SEPARATORS (CON'T)	***60***	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 - OR - NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		
	61	SAME AS LINE ***60***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
CLEAN AND DIRTY SIDE OF COMBUSTION AIR INTAKES	***62***	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 6 - 10 MILS -- & -- ONE FULL COAT SIGMA MARINE COATINGS SIGMAGUARD BT, 10 - 12 MILS SEE NOTE (33)		
	63	SAME AS LINE ***62***	ONE COAT SHERWIN WILLIAMS DURAPLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS -- & -- ONE FULL COAT SHERWIN WILLIAMS DURAPLATE UHS, 10 - 12 MILS SEE NOTE (33)		
	64	WATERJETTING TO NACE 5/SSPC-SP-12 CONDITION WJ-2 - OR - NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		
	65	SAME AS LINE ***64***	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS	ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS		
	66	SAME AS LINE ***64***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
CLEAN AND DIRTY SIDE OF COMBUSTION AIR INTAKES (CON'T)	***67***	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11, USING STAINLESS STEEL WIRE BRUSHES, STAINLESS STEEL PADS, OR ABRASIVE SANDING DISCS (ANSI/BHMA B74.18)	ONE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS	ONE STRIPE COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS -- & -- ONE FINAL COAT INTERNATIONAL INTERBOND 998, 6 - 8 MILS		
	68	SAME AS LINE ***67***	ONE COAT ALOCIT 28.15, 6 - 8 MILS		ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS	ONE STRIPE COAT ALOCIT 28.15, 6 - 8 MILS -- & -- ONE FINAL COAT ALOCIT 28.15, 6 - 8 MILS		
	69	SAME AS LINE ***67***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 17, 6 - 8 MILS SEE NOTE (33)		
MIXING ROOM/UPTAKE SPACES WITH VENTS OR LOUVERS TO THE OUTSIDE ATMOSPHERE (BULKHEADS & DECKS)	***70***	NEAR WHITE METAL BLAST NACE 2/SSPC-SP-10	ONE COAT SIGMA COATINGS EDGEGUARD PRIMER, 4 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 6 - 10 MILS -- & -- ONE COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***	ONE STRIPE COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 6 - 10 MILS -- & -- ONE COAT SIGMA COATINGS EDGEGUARD TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***		
	71	SAME AS LINE ***70***	ONE COAT SHERWIN WILLIAMS NOVA-PLATE UHS PRIMER, 4 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 6 - 10 MILS -- & -- ONE COAT SHERWIN WILLIAMS NOVA-PLATE TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***	ONE STRIPE COAT SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT, 6 - 10 MILS -- & -- ONE COAT SHERWIN WILLIAMS NOVA-PLATE TOPCOAT, 10 - 12 MILS ***SEE NOTE (33)***		
	72	SAME AS LINE ***70***	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS ***SEE NOTE (33)***		ONE STRIPE COAT INTERNATIONAL INTERLINE 624, 6 - 10 MILS -- & -- ONE COAT INTERNATIONAL INTERLINE 624, 10 - 12 MILS ***SEE NOTE (33)***	ONE STRIPE COAT INTERNATIONAL INTERLINE 624, 6 - 10 MILS -- & -- ONE COAT INTERNATIONAL INTERLINE 624, 10 - 12 MILS ***SEE NOTE (33)***		
	73	SAME AS LINE ***70***	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTE (33)		ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS -- & -- ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)		

TABLE 3 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR ALUMINUM SURFACES	***74***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***
	75	SAME AS LINE ***54***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***
	76	SAME AS LINE ***60***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***	SAME AS LINE ***42***

TABLE 3 GRP FIBERGLASS SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR FIBROUS GLASS BOARDS	***77***	SOAP & WATER CLEAN & HAND SAND AS NECESSARY	ONE COAT FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS		2 COATS WATER-BASED INTERIOR LATEX, MIL-PRF-24596, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A FIRE RETARDANT INTERIOR LATEX, 2 - 4 MILS/COAT			
	78	SAME AS LINE ***77***	ONE COAT FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS		2 COATS OF FINISH COAT DOD-E-24607, 1.5 - 3 MILS/COAT, F-124, 125, OR 126 (COLOR TO BE DESIGNATED)			

TABLE 3 WOOD SURFACES	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
INTERIOR COMPARTMENTS	***79***	HAND TOOL CLEAN -- & -- POWER TOOL CLEAN TO BARE WOOD OR TIGHTLY ADHERING INTACT PAINT	2 COATS FORMULA 84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS/COAT		2 COATS MIL-PRF-24596, WATER-BASED INTERIOR LATEX, 2 - 4 MILS/COAT - OR - 2 COATS NAVY F-25A, WATER-BASED FIRE RETARDANT COATING, 2 - 4 MILS/COAT SEE NOTES (9) & (17)			FOR COMPARTMENT PIPING & VENTILATION SEE NOTE (18)
	80	SAME AS LINE ***79***	2 COATS FORMULA 84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS/COAT		2 COATS DOD-E-24607, 1.5 - 3 MILS/COAT SEE NOTE (17)			SAME AS LINE ***79***

TABLE 4 STEEL SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
POTABLE WATER TANKS	1	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (26)	ONE COAT INTERNATIONAL 5747/5748, GREEN, 3 - 5 MILS	ONE STRIPE COAT INTERNATIONAL 5753/5754, WHITE, 3 - 5 MILS	ONE COAT INTERNATIONAL 5753/5754, WHITE, 3 - 5 MILS AT ADEQUATE THICKNESS TO MEET COATING RANGE			TOTAL SYSTEM 8 MILS MIN, 10 MILS MAX (AREAS WITHOUT STRIPE COAT) SEE NOTE (37)
	2	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS TANKGUARD N11G100/N11V100, GREEN, 3 - 5 MILS	ONE STRIPE COAT SHERWIN WILLIAMS TANKGUARD N11L100/N11V101, BLUE, 3 - 5 MILS	ONE COAT SHERWIN WILLIAMS TANKGUARD N11L100/N11V101, BLUE, 3 - 5 MILS AT ADEQUATE THICKNESS TO MEET COATING RANGE			TOTAL SYSTEM 8 MILS MIN, 10 MILS MAX (AREAS WITHOUT STRIPE COAT) SEE NOTE (37)
	3	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE V OR VI, CLASS 9, 3 - 5 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE V OR VI, CLASS 9, 3 - 5 MILS	ONE COAT MIL-PRF-23236, TYPE V OR VI, CLASS 9, 3 - 5 MILS AT ADEQUATE THICKNESS TO MEET COATING RANGE			TOTAL SYSTEM 8 MILS MIN, 10 MILS MAX (AREAS WITHOUT STRIPE COAT) SEE NOTE (37)
	4	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT F-152, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT F-156, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT F-150, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT F-152, MIL-DTL-24441, TYPE III, 2 - 4 MILS AT ADEQUATE THICKNESS TO MEET COATING RANGE	TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX (AREAS WITHOUT STRIPE COAT) SEE NOTE (37)
	5	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURAPLATE UHS, 6 - 10 MILS SEE NOTE (33)	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 10 - 12 MILS SEE NOTE (33)			
	6	SAME AS LINE ONE	ONE COAT SIGMAGUARD CSF 85, 8 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMAGUARD CSF 85, 2 - 4 MILS SEE NOTE (33)	ONE COAT SIGMAGUARD CSF 85, 8 - 12 MILS SEE NOTE (33)			
	7	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 9, 8 - 12 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 9, 2 - 4 MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 9, 8 - 12 MILS SEE NOTE (33)			
FEEDWATER TANKS ONLY	8	SAME AS LINE ONE	ONE COAT F-150, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT F-152, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT F-151, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE STRIPE COAT F-150, MIL-DTL-24441, TYPE III, 2 - 4 MILS	ONE COAT F-152, MIL-DTL-24441, TYPE III, 2 - 4 MILS AT ADEQUATE THICKNESS TO MEET COATING RANGE	TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX (AREAS WITHOUT STRIPE COAT)
	9	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERGARD FPJ 034/FPA GRAY, 4 - 6 MILS	ONE STRIPE COAT INTERNATIONAL INTERGARD, 4 - 6 MILS	ONE COAT INTERNATIONAL INTERGARD FPD 052/FPA WHITE, 4 - 6 MILS			
	10	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 11, 4 - 6 MILS	ONE STRIPE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 11, 4 - 6 MILS	ONE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 11, 4 - 6 MILS			

TABLE 4 STEEL SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS, SUMPS EDGE RETENTIVE-EXTENDED SERVICE LIFE 15-20 YEARS SEE NOTE (35)	11	SAME AS LINE ONE	ONE COAT CREAM SIGMA EDGEGUARD PRIMER (PDS NO. 5427), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT OFF-WHITE SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 6 - 10 MILS SEE NOTE (33)	ONE COAT WD GRAY SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 10 - 12 MILS SEE NOTE (33)			
	12	SAME AS LINE ONE	ONE COAT BUFF SHERWIN WILLIAMS NOVA-PLATE UHS PRIMER (B62H220/B62V220), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT GRAY SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62A220/B62V220), 6 - 10 MILS SEE NOTE (33)	ONE COAT WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62W220/B62V220), 10 - 12 MILS SEE NOTE (33)			
	13	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT INTERNATIONAL INTERLINE 624 (THA624/627) WHITE, 6 - 10 MILS SEE NOTE (33)	ONE COAT INTERNATIONAL INTERLINE 624 (THA625/627) GRAY, 10 - 12 MILS SEE NOTE (33)			
	14	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 6 - 10 MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5, 10 - 12 MILS SEE NOTE (33)			
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS, SUMPS EDGE RETENTIVE-EXTENDED SERVICE LIFE 10-12 YEARS (LESS STRINGENT HUMIDITY REQUIREMENTS) SEE NOTE (35)	15	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 SEE NOTE (38)	SAME AS LINE 11	SAME AS LINE 11	SAME AS LINE 11			
	16	SAME AS LINE 15	SAME AS LINE 12	SAME AS LINE 12	SAME AS LINE 12			
	17	SAME AS LINE 15	SAME AS LINE 13	SAME AS LINE 13	SAME AS LINE 13			
	18	SAME AS LINE 15	SAME AS LINE 14	SAME AS LINE 14	SAME AS LINE 14			

TABLE 4 STEEL SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS, SUMPS EDGE RETENTIVE-EXTENDED SERVICE LIFE 10-12 YEARS SEE NOTE (35)	19	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 6 - 10 MILS SEE NOTE (33)	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 10 - 12 MILS SEE NOTE (33)			
JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS, SUMPS NORMAL SERVICE LIFE 5-7 YEARS (LESS STRINGENT HUMIDITY REQUIREMENTS) SEE NOTE (35)	20	SAME AS LINE 15	SAME AS LINE 19	SAME AS LINE 19	SAME AS LINE 19			
CHT/MSD TANKS	21	SAME AS LINE ONE	ONE COAT CREAM SIGMA EDGEGUARD PRIMER (PDS NO. 5427), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT WD GRAY SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 6 - 10 MILS SEE NOTE (33)	ONE COAT WHITE SIGMA EDGEGUARD TOPCOAT (PDS NO. 5428), 10 - 12 MILS SEE NOTE (33)			
	22	SAME AS LINE ONE	ONE COAT BUFF SHERWIN WILLIAMS NOVA-PLATE UHS PRIMER (B62H220/B62V220), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT GRAY SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62A220/B62V220), 6 - 10 MILS SEE NOTE (33)	ONE COAT WHITE SHERWIN WILLIAMS NOVA-PLATE UHS TOPCOAT (B62W220/B62V220), 10 - 12 MILS SEE NOTE (33)			
	23	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT INTERNATIONAL INTERLINE 624 (THA624/627) WHITE, 6 - 10 MILS SEE NOTE (33)	ONE COAT INTERNATIONAL INTERLINE 624 (THA625/627) GRAY, 10 - 12 MILS SEE NOTE (33)			
	24	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 13, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 13, 6 - 10 MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 13, 10 - 12 MILS SEE NOTE (33)			

TABLE 4 STEEL SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMPERATURE 50 DEGREES FAHRENHEIT & ABOVE) EDGE RETENTIVE-EXTENDED SERVICE LIFE 15-20 YEARS SEE NOTE (8)	25	SAME AS LINE ONE	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, AMBER, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-5000, GRAY, 6 - 10 MILS SEE NOTE (33)	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-S674, AQUA, 10 - 12 MILS SEE NOTE (33)			
	26	SAME AS LINE ONE	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 6 - 10 MILS SEE NOTE (33)	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 10 - 12 MILS SEE NOTE (33)			
	27	SAME AS LINE ONE	ONE PRIMER COAT AMERON AMERCOAT 133, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT AMERON AMERCOAT 333, 6 - 10 MILS SEE NOTE (33)	ONE COAT AMERON AMERCOAT 333, 10 - 12 MILS SEE NOTE (33)			
	28	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERGARD 143 (THA 141/THA 148) PINK, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT INTERNATIONAL INTERGARD 143 (THA 143/THA 148) BUFF, 6 - 10 MILS SEE NOTE (33)	ONE COAT INTERNATIONAL INTERGARD 143 (THA 144/THA 148) GRAY, 10 - 12 MILS SEE NOTE (33)			
	29	SAME AS LINE ONE	ONE COAT INTERNATIONAL INTERLINE 624 PRIMER (THA626/627), 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT INTERNATIONAL INTERLINE 624 (THA624/627) WHITE, 6 - 10 MILS SEE NOTE (33)	ONE COAT INTERNATIONAL INTERLINE 624 (THA625/627) GRAY, 10 - 12 MILS SEE NOTE (33)			
	30	SAME AS LINE ONE	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 6 - 10 MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 10 - 12 MILS SEE NOTE (33)			

TABLE 4 STEEL SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMPERATURE 50 DEGREES FAHRENHEIT & ABOVE) EDGE RETENTIVE SERVICE LIFE 10 - 12 YEARS (LESS STRINGENT HUMIDITY REQUIREMENTS) SEE NOTE (8)	31	SAME AS LINE 15	SAME AS LINE 25	SAME AS LINE 25	SAME AS LINE 25			
	32	SAME AS LINE 15	SAME AS LINE 26	SAME AS LINE 26	SAME AS LINE 26			
	33	SAME AS LINE 15	SAME AS LINE 27	SAME AS LINE 27	SAME AS LINE 27			
	34	SAME AS LINE 15	SAME AS LINE 28	SAME AS LINE 28	SAME AS LINE 28			
	35	SAME AS LINE 15	SAME AS LINE 29	SAME AS LINE 29	SAME AS LINE 29			
	36	SAME AS LINE 15	SAME AS LINE 30	SAME AS LINE 30	SAME AS LINE 30			
BALLAST TANKS, FLOODABLE VOIDS (USE ONLY WHEN SUBSTRATE TEMPERATURE CANNOT BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT) NORMAL 5 - 7 YEARS SERVICE LIFE	37	SAME AS LINE 15	ONE COAT MIL-PRF-23236C, GRADE A OR B	ONE STRIPE COAT MIL-PRF-23236C, GRADE A OR B	ONE COAT MIL-PRF-23236C, GRADE A OR B			
CHAIN LOCKERS	38	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT MIL-PRF-23236, 3 - 5 MILS	ONE STRIPE COAT MIL-PRF-23236, 3 - 5 MILS	ONE COAT MIL-PRF-23236, 3 - 5 MILS			
NON-FLOODABLE VOIDS	39	SAME AS LINE 38	ONE COAT INTERNATIONAL INTERGARD 143 (THA 141/THA 148) PINK, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT INTERNATIONAL INTERGARD 143 (THA 143/THA 148) BUFF, 6 - 10 MILS SEE NOTE (33)	ONE COAT INTERNATIONAL INTERGARD 143 (THA 144/THA 148) GRAY, 10 - 12 MILS SEE NOTE (33)			
	40	SAME AS LINE 38	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5404, AMBER, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-5000, GRAY, 6 - 10 MILS SEE NOTE (33)	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 5411-S674, AQUA, 10 - 12 MILS SEE NOTE (33)			
	41	SAME AS LINE 38	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS PRIMER, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 6 - 10 MILS SEE NOTE (33)	ONE COAT SHERWIN WILLIAMS DURA-PLATE UHS, 10 - 12 MILS SEE NOTE (33)			
	42	SAME AS LINE 38	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 4 - 8 MILS SEE NOTE (33)	ONE STRIPE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 6 - 10 MILS SEE NOTE (33)	ONE COAT MIL-PRF-23236, TYPE VII, CLASS 5 OR 7, 10 - 12 MILS SEE NOTE (33)			
	43	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTE (40)	2 COATS F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS/COAT	ONE COAT NO. 27875 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS				TOTAL SYSTEM 4.5-6 MILS

TABLE 4 ALUMINUM SURFACES	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
TANKS AND VOIDS	44	NEAR WHITE BLAST, NACE 2/SSPC-SP-10, TO ACHIEVE 1-1/2 TO ***3*** MILS ANCHOR PATTERN, USING GARNET OR ALUMINUM OXIDE	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL	SAME AS FOR STEEL

TABLE 5 VARIOUS LOCATIONS	LINE	A SURFACE PREPARATION	B	C	D	E	F TOTAL SYSTEM	G DESIGNATIONS & MARKINGS
UNHEATED PIPING, FITTINGS, VALVES	1	HANDTOOL CLEAN, SSPC-SP-2 SEE NOTE (40)	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS	2 COATS OF BILGE FINISH COAT TO MATCH SURROUNDING SURFACES, INCLUDING LAGGED SURFACES			ONE COAT MIL-PRF-24635, 2 - 3 MILS, FOR COLOR CODED SYSTEMS
UNHEATED FERROUS MACHINERY EXTERNAL SURFACES	2	POWER TOOL CLEAN, SSPC-SP-3	SAME AS LINE ONE	ONE COAT F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	IF REQUIRED FOR HIDING, ONE ADDITIONAL COAT: F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS			
MACHINERY, GAGEBOARDS	3	SAME AS LINE 2	SAME AS LINE ONE	ONE COAT F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS	IF REQUIRED FOR HIDING, ONE ADDITIONAL COAT: F-111, MIL-DTL-15090, 1.5 - 3 MILS - OR - NO. 26307 (FED STD 595), MIL-PRF-24635, 2 - 3 MILS			
UNINSULATED SIDE OF BULKHEAD OR SHELL ADJACENT TO SEA OR AC BOUNDARY (FOR INTERIOR COMPARTMENTS ONLY)	4	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT HEMPEL HEMPADUR 45150-50630, 4 - 6 MILS	ONE COAT HEMPEL ANTI-CONDENS 617US-10000, 50 - 60 MILS				
	5	SAME AS LINE 4	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 - 3 MILS - OR - ONE COAT MIL-PRF-23236, 3 - 5 MILS	ONE COAT TEMP-COAT 101, 20 - 22 MILS	ONE COAT TEMP-COAT 101, 20 - 22 MILS	ONE COAT TEMP-COAT 101, 20 - 22 MILS		
BOILERS & ECONOMIZERS (EXCEPT PARTS USED FOR HEAT TRANSFER), MACHINERY CASINGS, FERROUS SHEET METAL & PIPING SURFACES	6	SAME AS LINE 4	ONE COAT AMERON AMERCOAT 892HS, 2 - 3 MILS SEE NOTE (39)					
	7	SAME AS LINE 4	2 COATS OF TT-P-28 SUFFICIENT TO COVER THE PROFILE					
ELECTRICAL EQUIPMENT, ELECTRONIC EQUIPMENT & CABLES	8	SAME AS LINE ONE	ONE COAT F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS	2 COATS F-111, MIL-DTL-15090, 1.5 - 3 MILS/COAT - OR - ONE COAT NO. 26307 FED STD 595), MIL-PRF-24635, 2 - 3 MILS				
CABLE, INTERIOR (OTHER THAN PVC, LOW SMOKE)	9	SAME AS LINE ONE	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 - 3 MILS/COAT	2 COATS NAVY F-25A OR 2 COATS WATER-BASED LATEX PER MIL-PRF-24596, 2 - 4 MILS/COAT	2 COATS DOD-E-24607 CHLORINATED ALKYD 1.5 - 3 MILS/COAT (FOR COLOR MATCH IF REQUIRED)			
CABLE, EXTERIOR (OTHER THAN PVC, LOW SMOKE)	10	SAME AS LINE ONE	SAME AS LINE 8	ONE COAT MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) TO MATCH SURROUNDING AREA, 2 - 3 MILS				
ELECTRICAL/ELECTRONIC CABLES (PVC, LOW SMOKE)	11	SAME AS LINE ONE	2 COATS MIL-PRF-24596, WATER-BASED LATEX, 2 - 4 MILS/COAT - OR - 2 COATS OF NAVY F-25A, 2 - 4 MILS/COAT		2 COATS OF DOD-E-24607, 1.5 - 3 MILS/COAT (FOR COLOR MATCH IF REQUIRED)			

TABLE 5 VARIOUS LOCATIONS	LINE	A SURFACE PREPARATION	B	C	D	E	F TOTAL SYSTEM	G DESIGNATIONS & MARKINGS
ANCHOR (SURFACE SHIP BOW ANCHORS) FOR ANCHORS BELOW LOWER BOOTTOPPING LIMIT, SEE NOTE (13)	12	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 ***SEE NOTE (14)***	ONE COAT MIL-PRF-23236, 3 - 5 MILS	ONE COAT MIL-PRF-23236, 3 - 5 MILS	ONE COAT HAZE GRAY, NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 2 - 3 MILS			
ANCHOR CHAIN	13	COMMERCIAL BLAST CLEAN, SSPC-SP-6 ***SEE NOTE (14) & (16)***	ONE COAT AMERON PSX 700 TO HOLD BLAST, 1 - 2 MILS	ONE COAT AMERON PSX 700, 4 - 5 MILS	ONE COAT AMERON PSX 700, 4 - 5 MILS		10 MILS MIN, 12 MILS MAX	AMERON PSX 700 SEE NOTE (15)
INTERIOR GALVANIZED SURFACES	14	BRUSH-OFF BLAST, SSPC-SP-7 - OR - POWER TOOL CLEAN, SSPC-SP-3		ONE COAT WATER-BASED INTERIOR LATEX, MIL-PRF-24596, 2 - 4 MILS - OR - ONE COAT NAVY F-25A FIRE RETARDANT INTERIOR LATEX, 2 - 4 MILS	TOPCOAT TO MATCH SURROUNDING AREA			
EXTERIOR GALVANIZED SURFACES	15	SAME AS LINE 14		ONE COAT MIL-PRF-24763, 2 - 4 MILS	TOPCOAT TO MATCH SURROUNDING AREA			
EXHAUST PIPE EXTERIOR	16	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10	ONE COAT AMERCOAT 892HS, HAZE GRAY #26270, 2 - 3 MILS - OR - 2 COATS OF TT-P-28 SUFFICIENT TO COVER THE PROFILE SEE NOTES (39) & (42)					
PCMS (REPAIRS)	17	STRIP PAINT, USING "PEEL-AWAY-7" - OR - PLASTIC MEDIA BLASTER - OR - SODIUM BICARBONATE MEDIA BLASTER SEE REPAIR & INSTALLATION METHODS, RIM 05T1-99			ONE COAT HAZE GRAY, MIL-PRF-24763 (LOW SOLAR ABSORPTION ONLY), 2 - 4 MILS (TOP COAT OF PCMS) SEE NOTE (45)			
PCMS (NEW INSTALLATION)	18	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT F-150, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTE (29)	ONE COAT F-151, MIL-DTL-24441, TYPE IV, 4 - 6 MILS SEE NOTES (29)	SAME AS LINE 17			
INTERIOR DECK PASSAGEWAYS NOT RECEIVING DECK COVERINGS SEE NOTE (12)	19	NEAR WHITE METAL BLAST, NACE 2/SSPC-SP-10 - OR - POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT AMERON AMERCOAT 238, 10 - 12 MILS	ONE COAT AMERON AMERCOAT 238, 10 - 12 MILS				
	20	SAME AS LINE 19	ONE COAT SIGMAGUARD CSF GLASS FLAKE 7954, 10 - 12 MILS	ONE COAT SIGMAGUARD CSF GLASS FLAKE 7954, 10 - 12 MILS				
	21	SAME AS LINE 19	ONE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 16, 10 - 12 MILS	ONE COAT MIL-PRF-23236, TYPE VI OR VII, CLASS 16, 10 - 12 MILS				